



UTE INDIAN TRIBE

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December 1, 2015

Janet McCabe
Acting Assistant Administrator
Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Jane Nishida
Principal Deputy Assistant Administrator
Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

RE: Comments on FIP for Air Emissions from True Minor Sources for Oil and Gas Production in Indian Country - Docket ID No. EPA-HQ-OAR-2014-0606

Dear Administrators McCabe and Nishida:

The Ute Indian Tribe appreciates the opportunity to comment on the Environmental Protection Agency's (EPA) proposed rulemaking entitled *Review of New Sources and Modifications in Indian Country: Federal Implementation Plan for Managing Air Emissions from True Minor Sources Engaged in Oil and Natural Gas Production in Indian Country*. The Tribe has been an active participant in the development of the proposed rule working with both EPA as well as our oil and gas industry partners.

In addition to our comments on the proposed rule, the Tribe also incorporates and encloses its August 20, 2014 comments on EPA's advance notice of proposed rulemaking entitled *Managing Emissions from Oil and Natural Gas Production in Indian Country*, published in the Federal Register on June 5, 2014. 79 Fed. Reg. 32502. Many of these comments are still applicable to the proposed rule.

We look forward to continued government-to-government consultation with EPA on the proposed rule. Consultation should be scheduled once EPA has reviewed comments received on the proposed rule and is prepared to discuss those comments and any changes to the proposed rule with the Tribe and other interested tribes. Please contact the Tribe's Washington, D.C. Counsel, Rollie Wilson, at 202-340-8232 to schedule future consultations on this issue.

Thank you again for your efforts to work closely with the Tribe on this issue.

Sincerely,

Shaun Chapoose, Chairman
Ute Tribal Business Committee

Enclosures



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Comments on Review of New Sources and Modifications in Indian Country: Federal Implementation Plan for Managing Air Emissions from True Minor Sources Engaged in Oil and Natural Gas Production in Indian Country

Docket ID No. EPA-HQ-OAR-2014-0606

December 1, 2015

Introduction

The Ute Indian Tribe oversees air quality on our Uintah and Ouray Reservation while also maintaining its role as a major oil and gas producer. On our Reservation these goals are not in conflict with each other. Ultimately, the responsible and efficient regulation of air quality on our Reservation provides benefits for our member's health and while also ensuring development of our oil and gas resources to fund government operations, services we provide our members and the larger regional economy.

The Tribe agrees with the main theme of the Environmental Protection Agency's (EPA) proposed rulemaking entitled *Review of New Sources and Modifications in Indian Country: Federal Implementation Plan for Managing Air Emissions from True Minor Sources Engaged in Oil and Natural Gas Production in Indian Country* (FIP). The proposed rule or FIP is intended to protect the Reservation's air shed while allowing for streamlined permitting of minor oil and gas sources. However, we ask that the Environmental Protection Agency (EPA) achieve this goal in a manner that also promotes tribal sovereignty, authority, self-determination, and our ability to develop our resources to benefit our members.

Production of oil and gas began on our Reservation in the 1940's and has been ongoing for the past 70 years with significant periods of expansion. The Tribe leases about 400,000 acres for oil and gas development. We have about 7,000 wells that produce 45,000 barrels of oil a day. We also produce about 900 million cubic feet of gas per day. And, we have plans for expansion as the Tribe is in process of opening up an additional 150,000 acres to mineral leases on our Reservation.

The Tribe relies on its oil and gas development as the primary source of funding for our tribal government and the services we provide. We use these revenues to govern and provide services on the second largest reservation in the United States. Our Reservation covers more

than 4.5 million acres and we have about 3,000 members living on the Reservation. The Tribe is also a major employer and engine for economic growth in northeastern Utah.

Tribal businesses include a bowling alley, supermarket, gas stations, feedlot, an information technology company, manufacturing plant, and Ute Oil Field Water Services, LLC. Our governmental programs and tribal enterprises employ 450 people, 75% of whom are tribal members. Each year the Tribe generates tens of millions of dollars in economic activity in northeastern Utah.

The Tribe takes an active role in the development of its resources, however, despite our progress, the Tribe's ability to fully benefit from its resources is often limited by the federal agencies regulating oil and gas development on the Reservation. In order to avoid these limits the Tribe asks that EPA work hard to implement its proposed rule in a manner that recognizes that Indian lands are not public lands. This will require EPA's careful attention to developing its rule and implementing the rule in a manner that does not undermine our governmental authority and our ability to develop our resources to benefit our members.

Definition of Indian Country

The Tribe is very concerned about EPA's proposal to revise the definition of Indian Country for the purposes of this rule. The Tribe, like many tribes, is surrounded by state and county governments that seek to challenge our jurisdictional authority. EPA should be extremely careful that its efforts to regulate air quality in Indian Country do not result in court decisions that reduce tribal jurisdiction over portions of Indian Country. The Tribe recommends further consultation with tribes on this issue, as well as with the Department of Justice, well before EPA attempts to finalize this rule.

In short, before EPA made a distinction years ago between on-reservation and off-reservation Indian Country for the purposes of a tribe assuming Clean Air Act authority, EPA should have considered the implications of this distinction. From a tribal perspective there is no distinction. Tribal lands, allotments and dependent communities are all under tribal jurisdiction and authority. Tribes exercise jurisdiction over these lands through existing tribal sovereignty and in accordance with numerous Federal programs that affirm tribal authorities and tribal self-determination over these lands and areas.

To minimize any additional impacts from EPA's faulty distinction in the proposed rule, first, EPA should be cautious of how the rule appears. By restating the definition of Indian Country in the rule, it appears that EPA is defining the term. Of course, EPA cannot change the definition of Indian Country through the proposed rule. The term Indian Country was defined by Congress in statute at 25 U.S.C. § 1151. EPA's regulations cannot change or modify this definition. To avoid any confusion, EPA should revise the rule to make clear that Indian Country is statutorily defined.

The Tribe recommends that EPA delete from 40 C.F.R. § 49.167 its recitation of the definition of Indian Country. Rather than repeating 25 U.S.C. § 1151 in regulatory text, EPA should simply refer readers to the statute. In other words, EPA's regulatory text would read:

Indian Country is defined in 25 U.S.C. § 1151.

By simply referencing the statute, rather than appearing to change the definition of Indian Country, EPA will help to clarify the application of the proposed rule and its relationship to Indian Country which has meaning far beyond EPA's proposed rule.

In addition, the proposed and final rules should not state that EPA is "revising the definition of Indian Country." EPA is doing no such thing. As a result of *Oklahoma Dept. of Environmental Quality v. EPA*, 740 F.3d 185 (D.C. Cir. 2014), EPA is required to consider how it will apply the proposed rule in certain portions of Indian Country, but EPA is not revising the definition of Indian Country.

In other words, the Oklahoma case is not about the definition of Indian Country, but the process EPA is using to apply the proposed rule to certain parts of Indian Country. The Tribe recommends that EPA remove all references to revised definitions of Indian Country from the proposed rule. Rather than purporting to revise the definition of Indian Country, the Tribe suggests that EPA include a new section discussing the applicability of the proposed rule.

For this new section, the Tribe generally supports EPA's proposed language that the rule would apply to "all Indian reservation lands where no EPA-approved program is in place and all other areas of Indian country where no EPA-approved program is in place and over which an Indian tribe, or the EPA, has demonstrated that a tribe has jurisdiction." While this is a good start, EPA should make clear that a tribe's jurisdiction does not need to be "demonstrated" to exist. EPA should also be clear that the term jurisdiction is not just referring to Clean Air Act jurisdiction, but all forms of jurisdiction.

The Tribe also recommends that EPA address in the rule the underlying source of the problem—EPA procedures for recognizing tribal authority to implement the Clean Air Act. The distinction that EPA created in its regulations between on-reservation and off-reservation Indian Country was not included in the Clean Air Act and is not consistent with how tribes exercise authority over their lands. Most important, EPA should not require tribes to demonstrate authority over off-reservation areas. These areas were included in the definition of Indian Country for a reason—because tribes exercise authority over these areas.

Reservation-Specific FIP

The Tribe has serious concerns about the applicability of the FIP to nonattainment areas. In its current form, the FIP would not cover areas designed as nonattainment: "[The FIP] would not apply to new and modified true minor sources that are located or expanding in referenced areas of Indian country designated nonattainment." 80 Fed. Reg. at 56557. Given the very real likelihood of a nonattainment designation for the Uinta Basin in light of new ozone standards, the Tribe wants to see a rule that will facilitate a smooth transition for when EPA designates an area as nonattainment that was previously attainment or unclassified designation. What we cannot afford is a lengthy delay for attainment plans to be developed that would be just another reason for operators to focus their resources elsewhere.

While the Tribe appreciates the decision of the EPA to develop a FIP for minor sources, the Tribe maintains the position that EPA should develop a FIP specifically tailored to the unique air quality issues on the Uintah and Ouray Reservation. A nationwide FIP will not address the problems of a nonattainment designation, which will likely result in EPA attempting to process hundreds of true minor source permits within a relatively short timeline. If a reservation-specific FIP would lessen the inevitable administrative burden—both administratively and practically—that will result from a nonattainment designation, EPA should consider a final rule that provides for streamlined minor NSR in nonattainment areas so as not to disadvantage development on the Uintah and Ouray Reservation. Such a region-specific FIP would not only promote certainty in the Uinta Basin, but it would help transition operations under nonattainment requirements.

As expected, the proposed FIP does not cover areas that are currently or will in the near future have to transition from attainment to nonattainment, such as the Uinta Basin. Therefore, the FIP will likely have relatively limited efficacy on our Reservation. Given the amount of resources that have been devoted toward implementation of this rule, the Tribe would like to see a FIP that accommodates the Tribe's thoroughly documented concerns. Such a reservation-specific FIP would not only have many practical effects, it would also accommodate state requirements for minor source permitting. EPA recognized in the Fort Berthold FIP the importance of maintaining consistency with state requirements. Attempting to apply a "one-size-fits-all" approach at a national level would compromise unique concerns about the Uinta Basin's air quality. Just as EPA addressed the unique issues that arose for sources operating in the Bakken formation, EPA's Indian Country Minor New Source Review program must be based on a reservation or region-specific basis.

The Tribe cannot afford to lose the jobs or the revenue that funds essential government services if and when Utah develops its plan. A reservation-specific FIP would also have other benefits. Under the Clean Air Act, where a tribe has not developed an approved Tribal Implementation Plan ("TIP"), EPA has the authority to step into the shoes of the tribe pursuant to the FIP authority and implement a FIP in Indian Country. 76 Fed. Reg. 38748, 38752. EPA promulgated the "tribal authority rule" in 1998 to provide more detailed criteria and procedures for tribes to be treated as states under the CAA if they seek CAA program approval. 63 Fed. Reg. 7254 (Feb. 12, 1998). Tribes are authorized to develop a comprehensive TIP and seek full authority to monitor and enforce the National Ambient Air Quality Standards (NAAQS) within their reservation. The Ute Indian Tribe has an interest in at least exploring the possibility of working toward a TIP so that it may one day assume primacy over certain regulatory functions and expand its authority gradually.

Application of FIP to Minor Modifications at Major Sources and Synthetic Minor Sources.

Minor modifications should not be subject to source-specific permitting and more burdensome review than the same size new source or modifications at minor sources. The Tribe is concerned about the applicability of the FIP if the Uinta Basin is designated nonattainment. Although EPA has provided streamlined minor NSR in nonattainment areas for other source categories, it has excluded oil and gas sources in nonattainment areas from streamlined minor NSR. As a result, source-specific minor NSR will apply to all minor source emission increases

from oil and gas sources above 2 tons per year. Such a requirement will certainly limit oil and gas activity on the Reservation.

To both facilitate and encourage development on the Reservation, the FIP should be available for minor modifications at major sources and modifications at synthetic minor sources. Both of these modifications can be of the same size and type as modifications at a true minor source. Through the proposed rule, EPA limits the FIP to modifications at true minor sources. Requiring source-specific permitting for major sources and synthetic minors seems both inefficient and excessively burdensome.

The proposed FIP does not provide a streamlined approach for the Tribe's industry partners to obtain synthetic minor permits for oil and natural gas operations. By excluding synthetic minor sources from the FIP, operators must obtain synthetic minor permits through the complex and specific case-by-case permitting process established in §49.158. The absence of a streamlining mechanism would place oil and natural gas development on the Reservation at a distinct disadvantage when competing for development opportunities with adjacent state lands. To promote competition and reduce delays, EPA should consider including synthetic minor sources in its streamlining mechanism. Such an inclusion would both facilitate and streamline compliance with the minor NSR in Indian Country.

Government-to-Government Tribal Consultation

EPA should engage the Tribe in additional government-to-government consultation once EPA has reviewed comments on the proposed rule and is prepared to discuss those comments and any changes to the proposed rule. EPA's May 4, 2011, "Policy on Consultation and Coordination with Indian Tribes," provides in Section V.B.1. that "regulations or rules" and "permits" are "normally appropriate for consultation" among a number of other EPA activities. In addition, EPA's commitment to consult on regulations and rules fulfills Executive Order No. 13175 on "Consultation and Coordination with Indian Tribal Governments" which requires that, "Each agency shall ... ensure meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications."

Of course, this is also consistent with President Obama's direction in his November 5, 2009, Memorandum for the Heads of Executive Departments and Agencies on Tribal Consultation. In that Memorandum the President stated that, "My Administration is committed to regular and meaningful consultation and collaboration with tribal officials in policy decisions that have tribal implications including, as an initial step, through complete and consistent implementation of Executive Order 13175." The President also stated that, "Consultation is a critical ingredient of a sound and productive Federal-tribal relationship." We agree with the President. Federal rules are more effective when we work together.

Conclusion

The Tribe appreciates this opportunity to comment on EPA's proposed rule or FIP. Most important and before proceeding further, the Tribe asks that EPA, the Department of Justice and concerned tribes engage in consultation to address EPA's misguided attempt to revise the

definition of Indian Country. The issue EPA should be addressing is its regulatory process for affirming tribal authority to exercise jurisdiction under the Clean Air Act, not Congress' long-standing definition of Indian Country.



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August 20, 2014

Gina McCarthy, Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Ave., NW
Washington, D.C. 20460

Re: Comments of the Ute Indian Tribe for the Federal Minor New Source Review Program in Indian Country, Docket ID No. EPA-HQ-OAR-2011-0151.

Dear Administrator McCarthy:

Please find enclosed the Ute Indian Tribe's comments to the U.S. Environmental Protection Agency ("EPA") in response to the Advance Notice of Proposed Rulemaking ("ANPR") entitled *Managing Emissions from Oil and Natural Gas Production in Indian Country*, published in the Federal Register on June 5, 2014. 79 Fed. Reg. 32502. Comments on the ANPR were originally due on July 21, 2014. In a Federal Register Notice on July 17, 2014, EPA extended the comment period to August 20, 2014. 79 Fed. Reg. 41665.

The Ute Indian Tribe recommends that EPA use a Federal Implementation Plan ("FIP") as the approach for its Indian Country Minor New Source Review program. First, EPA should consult with tribes to make sure that the rule addresses tribal concerns. For the Ute Indian Tribe, EPA should consult at least with the Ute Tribal Business Committee, the Energy and Minerals Department, and the Ute Air Quality Division to learn about oil and gas activities on our Reservation and the best way to regulate minor sources. A reservation-specific FIP would streamline the permitting approach while also addressing issues unique to the Uintah and Ouray Reservation. For this reason, the Tribe opposes a nationwide FIP, which would apply the same standards to all tribes and not account for the specific concerns of the Ute Indian Tribe.

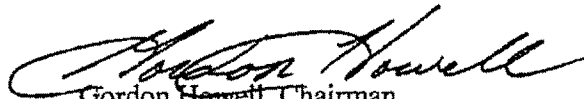
Any final rule proposed by EPA must also account for the Tribe's dependence on the development of oil and gas on our Reservation. Energy development has long been an important part of the Tribe's Reservation and regional economy. The Tribe leases about 400,000 acres for oil and gas development, including about 7,000 wells that produce 45,000 barrels of oil a day. We also produce about 900 million cubic feet of gas per day. The Tribe relies on revenues from oil and gas development as the primary source of funding for governmental services provided by numerous tribal departments and agencies including natural resources, land, fish and wildlife management, housing, education, emergency medical services, public safety and energy and minerals management to name a few. In addition, revenues from oil and gas development

promote employment and economic growth in northeastern Utah including many tribally owned businesses. The Tribe fears that a nationwide approach would compromise the Tribe's interests.

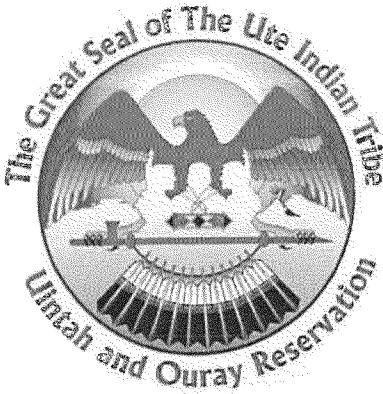
In light of the enclosed comments, Tribe recommends that EPA use a FIP specific to the Uintah and Ouray Reservation to implement the Indian Country Minor New Source Review Program. The Tribe prefers a FIP over a permit-by-rule because the FIP can also regulate certain classes of existing minor sources. Whichever approach EPA chooses, however, must account for the unique characteristics of the Reservation and balance regulation with the Tribe's interest in developing its resources to provide for Tribal members so that it does not unnecessarily harm the Tribe's tremendous economic activities.

If you have any questions about these comments, please contact the Tribe's General Counsel, Tom Fredericks, at 303-673-9600. Thank you for your consideration.

Sincerely,

A handwritten signature in black ink, appearing to read "Gordon Howell", is written over the typed name.

Gordon Howell, Chairman
Ute Tribal Business Committee



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Ute Indian Tribe of the Uintah and Ouray Reservation

Comments on the Advanced Notice of Proposed Rulemaking re: Indian Country Minor New Source Review Program

August 20, 2014

I. Introduction: Background on the Ute Indian Tribe

The Ute Indian Tribe of the Uintah and Ouray Indian Reservation (the "Tribe") appreciates the opportunity to provide the following comments to the U.S. Environmental Protection Agency ("EPA") in response to the Advance Notice of Proposed Rulemaking ("ANPR"). On June 5, 2014, the EPA issued the ANPR entitled *Managing Emissions from Oil and Natural Gas Production in Indian Country*. Below, the Tribe has included its feedback on what the Ute Indian Tribe believes is the most effective and efficient means of implementing an approach to address emissions from new and modified oil and natural gas production activities.

The Tribe is one of a handful of major oil and gas producing Indian tribes in the United States. Production of oil and gas began on the Uintah and Ouray Reservation (the "Reservation") in the 1940's and has continued with significant periods of expansion. The Tribe leases about 400,000 acres for oil and gas development and has about 7,000 wells that produce 45,000 barrels of oil per day. The Tribe also produces approximately 900 million cubic feet of gas per day. These amounts are likely to increase as the Tribe is opening up an additional 150,000 acres to mineral leases on the Reservation for exploration and development.

a. Economic Importance of Oil and Gas Development to the Tribe

The Tribe has a substantial interest in commenting on the ANPR because energy development spurs job creation and generates revenue that funds the tribal government and the services provided to tribal members on the second largest reservation in the United States. The tribal government manages the Reservation through 60 tribal departments and agencies including natural resources, land, fish and wildlife management, housing, education, emergency medical services, public safety, and energy and minerals management. The Tribe is also a major

employer and engine for economic growth in northeastern Utah. Governmental programs and tribal enterprises employ approximately 450 people, 75% of whom are tribal members. Each year the Tribe generates tens of millions of dollars in economic activity in northeastern Utah.

The Tribe serves as one of the most representative examples of how a tribe has been able to use energy production to lift itself out of poverty and improve the lives and well-being of its members through the revenues generated from its resources. The benefit of having significant natural resources enables the Tribe to supplement shortfalls in federal funding with revenues generated from oil and gas development to fund these vital tribal government programs. These benefits have helped the Tribe improve its governmental efficiency and effectiveness. Development also benefits the Tribe by stimulating economic development on the Reservation, creating both jobs and tribal businesses. Many of these jobs are in the oil and gas industry.

The Tribe takes an active role in the development of its resources as the owner of Ute Energy Exploration & Marketing LLC. The Tribe is a working interest owner in its oil and gas business as opposed to taking a passive role and only collecting royalties. Ute Energy Exploration & Marketing LLC jointly owns, with Anadarko Petroleum Corporation, the Chipeta gas processing and delivery plant in the Uintah Basin. Ute Energy Exploration & Marketing LLC also has ownership interests in other midstream assets in the Uintah Basin.

A uniform nationwide Indian Country Minor New Source Review Program that applies both to new and existing sources would further slow review and approval of oil and gas permits, impact the Tribe's ability to expand operations, and decrease the revenue the Tribe is able to earn from tribal lands. Despite the progress the Tribe has made, the ability to benefit from its resources is limited by multiple federal agencies overseeing oil and gas development on the Reservation. Delays in the federal oil and gas permit approval process are causing energy companies to limit their activities on the Reservation. Companies operating on the Reservation will only commit as many resources as can be supported by the pace of permit approvals.

The oil and gas companies operating on the Reservation often tell the Tribe that the federal oil and gas permitting process is the single biggest risk factor to their operations. If the risks become so great, drilling rigs will leave the Reservation for private or state lands. This would be even worse than companies limiting their operations because drilling rigs that leave the Reservation usually do not come back. The Tribe is concerned that if EPA used an approach that applied the same standards nationwide, rather than regulations designed specifically for the Uintah and Ouray Reservation, companies would limit their operations or leave the Reservation. This would lead to job cuts and significantly diminish revenue used to fund our tribal government and provide services to tribal members.

b. Air Quality Problems in the Uintah Basin

While oil and gas production is crucial to the Tribe's welfare, the Tribe is also committed to the sustainable and responsible development of its mineral resources. At this time, the Tribe is attempting to balance development with improving the Reservation's air quality, a difficult task as the Reservation sits within the Uintah Basin. Ozone levels in the Uintah Basin are among the worst in the nation. Winter ozone levels increase in the Basin when there is snow cover and a

strong temperature inversion that concentrates pollution emissions close to the ground. Under these conditions, volatile organic compounds (VOCs) and oxides of nitrogen (NOx) rapidly react to form ozone. Compounding the air quality problems, fugitive carbonyl emissions, especially formaldehyde, are released from oil and gas sources. This has also been shown to be an important contributor to ozone formation in the Basin. When these conditions occur, tribal members must endure poor air quality for weeks at a time.

The Tribe recommends a final rule that regulates emissions in a manner that still allows the Tribe to continue the development of its natural resources. Therefore, the Tribe recommends that EPA utilize a reservation-specific Federal Implementation Plan (“FIP”) as an approach to address emissions from minor sources. While it may be difficult for EPA to develop a FIP for each Indian reservation, EPA should at least develop unique FIPs for major oil and gas producing tribes such as the Ute Indian Tribe. In doing so, EPA should balance the Tribe’s need to continue economic development on the Reservation with improving air quality for the well-being of tribal members. The reservation-specific FIP would also take into account, though not imitate, the surrounding state’s oil and gas regulations, making it less likely for operators to move operations to non-Indian and fee land. Such an approach would protect air quality while preserving essential revenue, jobs, and opportunities for economic development for Indian tribes.

II. The EPA Should Use a Reservation-Specific FIP to Streamline the Permitting on the Uintah and Ouray Reservation

The Ute Indian Tribe encourages EPA to use a FIP as an approach for its Indian Country Minor New Source Review program. A FIP would streamline the permitting approach, eliminate the need for unnecessary delays such as preconstruction approval, and apply requirements directly to sources subject to the regulation. But it is important that the FIP not apply the same standards to all of Indian Country, as the variations in state minor source permitting rules and concerns of Indian tribes cannot be adequately represented or addressed in a uniform national rule. Holding operators on the Reservation to standards EPA based off of California, for example, would unnecessarily obstruct development on the Uintah and Ouray Reservation. Therefore, EPA should develop reservation or region-specific FIPs that account for issues and concerns particular to that location. Through a reservation-by-reservation approach, EPA can protect tribal interests by regulating emissions in a fair yet effective manner.

a. The Tribe Opposes the Application of Nationwide FIP to the Reservation

The Tribe opposes any attempt to implement a nationwide FIP that does not take into account the unique characteristics of the Uintah and Ouray Reservation. After all, the goal is to develop a rule that would achieve somewhat equal standards between tribal land and federal, state, fee lands. The disparity in state regulation makes a nationwide FIP impractical to level the playing field between tribes located in different regions. A regional or reservation-specific FIP, however, could level the playing field by accounting for particular air quality concerns and permitting requirements of surrounding jurisdictions.

Consistency is a good thing. But an overly burdensome national FIP would lack both the flexibility and streamlining that is apparent in many state permitting programs. The national

applicability of the Tribal Minor NSR Review Program would not reflect the many variations in state minor source permitting. EPA recognized in the Fort Berthold FIP the importance of maintaining consistency with state minor source programs. Fed. Reg. 48878, 48881 (“Finally, this rule is important in that while not identical to, the rule is consistent with the regulations approved into North Dakota’s SIP . . . this rule ensures that consistent requirements apply to activities both inside of and within the” Fort Berthold Indian Reservation). Attempting to apply a “one-size-fits-all” approach at a national level would certainly be at odds with state programs that are mature, and that may more readily accommodate unique air quality concerns and producing basin characteristics. Just as EPA addressed the unique issues that arose for sources operating in the Bakken formation, EPA’s Indian Country Minor New Source Review program must be based on a reservation or region-specific basis.

b. EPA Should Develop a FIP for Major Oil and Gas Producing Tribes

EPA should develop a FIP specifically for the Uintah and Ouray Reservation. The Tribe’s concerns are unique to the Uintah and Ouray Reservation and the Uintah Basin. Other tribes, in areas such as California, Washington, and Oregon do not share the same air quality concerns as the Ute Indian Tribe. Accordingly, it does not make sense for EPA to apply the same standards to all Indian tribes. Instead, EPA should address the individual concerns for each tribe’s reservation or region. Such a localized FIP would account for, but not adopt, state rules and regulations to ensure that operators are not punished for on-reservation activities or rewarded for abandoning tribal operations in favor of fee or state land. To function as a solution rather than a barrier to development, the approach must take into account each reservation’s unique characteristics. Although the Fort Berthold FIP is fundamentally different, EPA should use this FIP as a model.

A FIP developed solely for the Ute Indian Tribe is necessary to account for ozone problems unique to the Uintah Basin. Here, a nonattainment designation for ozone seems inevitable. Nonattainment areas have levels of pollutants that make air quality fall below national standards. 42 U.S.C. § 7407(d); *see also Great Basin Mine Watch v. EPA*, 401 F.3d 1094, 1096 (9th Cir. 2005) (describing the three classifications of air quality). Due to these deficiencies, the CAA requirements impose more stringent technology requirements on nonattainment areas in order to bring those areas within the national standards over time. 42 U.S.C. §§ 7501-7503. Both Uintah and Duchesne Counties are designated as “unclassifiable.” 77 Fed. Reg. 30110, 30151 (May 21, 2012). Should EPA declare the Basin as nonattainment to reduce ozone pollution in the region, operators will be required to modify their technologies accordingly.

States usually take the lead in ensuring that regions or sources do not violate the NAAQS. *See North Carolina v. EPA*, 531 F.3d 896, 902 (D.C. Cir. 2008); *see also* 42 U.S.C. § 7410. If EPA designates an area as nonattainment, then the state must develop a plan to bring the area back into attainment within a limited period of time. The applicable regulations impose strict emissions controls and other measures on sources operating or proposing to operate in nonattainment areas. *See generally*, 42 U.S.C. §§ 7502, 7503; 40 C.F.R. §§ 51.165–.166. Fully aware of the strict emissions controls, the Tribe has been working with its oil and gas industry partners to identify emission reduction strategies that could improve public health and could also

reduce future regulatory requirements that would occur if the area is designated as nonattainment.

However, episodic and voluntary seasonal controls are not enough to effectively reduce emissions in the area. The Tribe would like to see oil and gas operators take steps now, rather than after the nonattainment designation, to address emissions that cause or contribute to a NAAQS or PSD increment violation. Because oil and gas development is so essential to the Tribe, it is important to preserve the Tribe's ability to continue development. The Tribe cannot afford to lose the jobs or the revenue that funds essential government services. Further, steps to improve air quality should not be delayed until EPA designates the Basin as nonattainment for ozone. Delayed action compromises the health and safety of tribal members and non-Indians throughout the Basin. Here, the Tribe would like to see EPA establish air quality controls to address the air quality concerns in a matter that is neither excessively expensive nor unnecessary. *See, e.g., Sierra Club v. U.S. EPA*, 99 F.3d 1551, 1556 (10th Cir. 1996). For this reason, a reservation-specific FIP is preferred.

A reservation-specific FIP would also have other benefits. Under the Clean Air Act, where a tribe has not developed an approved Tribal Implementation Plan ("TIP"), EPA has the authority to step into the shoes of the tribe pursuant to the FIP authority and implement a FIP in Indian Country. 76 Fed. Reg. 38748, 38752. EPA promulgated the "tribal authority rule" in 1998 to provide more detailed criteria and procedures for tribes to be treated as states under the CAA if they seek CAA program approval. 63 Fed. Reg. 7254 (Feb. 12, 1998). Tribes are authorized to develop a comprehensive TIP and seek full authority to monitor and enforce the National Ambient Air Quality Standards (NAAQS) within their reservation. The Ute Indian Tribe has an interest in at least exploring the possibility of working toward a TIP so that it may one day assume primacy over certain regulatory functions and expand its authority gradually.

c. EPA Could Use a Reservation-Specific FIP to Regulate Emissions from Existing Minor Sources

The Ute Indian Tribe is also concerned about the cumulative air quality impact from existing minor source emissions. Hundreds of unregulated existing minor sources on the Uintah and Ouray Reservation harm the health and welfare of tribal members. Neither a general permit nor a permit-by-rule would allow EPA to regulate these emissions. A FIP could regulate existing sources. However, not all existing minor sources should be regulated in the same manner and EPA should target those sources most directly contributing to air quality degradation. If EPA chooses to regulate existing sources in a FIP developed specifically for the Uintah and Ouray Reservation, it should apply control requirements to existing source emissions in a flexible manner, gradually increasing enforcement as appropriate.

The Tribe would like to see the rule apply to the oldest and most inefficient minor sources. Prioritizing existing minor sources could provide a solution that is not overly burdensome to oil and gas operators on the Reservation. Without first meeting with the Tribe's Air Quality Division to determine which sources should be included, a FIP that includes all existing sources would compromise continued development on the Reservation, limiting both tribal revenue and opportunities for tribal members. Oil and gas operations have created

enormous opportunities for the Tribe and its members. It is crucial that a reservation-specific FIP not unfairly hamper these opportunities.

d. EPA Should First Consult with the Ute Indian Tribe

To develop an effective and equitable FIP, EPA should first consult with the Ute Indian Tribe so that the Tribe can offer its expertise, experience, and input into developing the FIP. Executive Order No. 13175 on Consultation and Coordination with Indian Tribal Governments requires that tribal consultation start at the earliest possible point in the process. Consultation must begin early so that tribes can be involved in designing the proposed rules from the ground up. Section 3(c)(3) of the Executive Order No. 13175 directs that EPA, “consult with tribal officials as to the need for Federal standards and any alternatives that would limit the scope of Federal standards or otherwise preserve the prerogatives and authority of Indian tribes.” Consultation after a proposed rule has already been published in the Federal Register does not provide tribes with this opportunity.

Tribal consultation allows EPA to integrate the Tribe’s comments and concerns so that the Uintah and Ouray Reservation FIP functions in the best interest of the Tribe. Unlike EPA, the Tribe is intimately familiar with the Reservation, member concerns, economic development, and the effects of air quality problems on tribal members. EPA should at least consult with the Ute Tribal Business Committee, the Energy and Minerals Department, and the Ute Air Quality Division to learn more about oil and gas activities on our Reservation and the best way to regulate minor sources so that it will not interrupt economic development. This would ensure that EPA truly regulates in the shoes of the Tribe. *See Oklahoma DEQ v. EPA*, 740 F.3d 185, 194–95 (D.C. Cir. 2014). Only after proper consultation will EPA have an understanding of the potential impacts—both regulatory and economic—of any regulation.

III. EPA Should Not Use a General Permit as an Approach to Regulate New Minor Sources

The EPA should not use a general permit because such an approach would cause unnecessary delays such as pre-construction review. This would create a significant administrative burden for EPA regional offices and has the potential to create new permitting backlogs, slowing production, delaying jobs, and diminishing tribal revenue. It undermines the Tribe’s goal to streamline this process and introduces a new element of uncertainty into company drilling schedules. The limited staffing resources available at the Division of Air Quality would create additional permitting delays, with commensurate financial risk for companies contemplating investment on the Reservation. A general permit will create other delays by enabling the public to challenge a particular source receiving coverage at the administrative level. Enabling public participation at this level would allow individuals who live hundreds or thousands of miles away, and without any affiliation to the Tribe, to prevent the Tribe from realizing the benefits of its trust resources. For these reasons, the Tribe opposes a general permit as a means to address existing sources in Indian Country.

IV. A FIP is Preferred to a Permit-by-Rule

The Tribe opposes a final rule that utilizes a permit-by-rule approach. Such an approach would be limited to addressing emissions from new and modified sources. A permit-by-rule provides many advantages over a general permit. For example, a permit-by-rule produces a standard set of requirements that may apply to multiple sources with similar emissions and other characteristics. This streamlined approach enables operators to notify the EPA that an individual source meets all eligibility criteria for coverage. Other benefits are that preconstruction approval is not required and the public may only object to a particular source receiving permit coverage through judicial challenge. A permit-by-rule would be far less resource-intensive than general permits. Nevertheless, the Tribe recommends that EPA consult with tribes to develop a reservation-specific FIP, which is preferable to a permit-by-rule.

V. The EPA Should Not Include Setback Requirements in the Final Rule

The final rule should not implement a setback requirement. This rule should address air emissions, not the location of the sources creating those emissions in relation to structures in Indian country. Including a setback requirement undermines tribal sovereignty, contravenes explicit requirements embodied in existing Indian mineral leases, and is contrary to existing BIA regulations. Moreover, EPA cannot exceed the authority granted by Congress. *La. Pub. Serv. Comm'n v. FCC*, 476 U.S. 355, 374 (1986). Congress has not granted authority to EPA to supplant tribal surface jurisdiction. Further, specific setback requirements are already embodied in Indian mineral leases and the regulations implementing and governing the same. Finally, many oil and gas producing tribes already have ordinances or regulations that establish setbacks. EPA does not have surface authority as a setback requirement has nothing to do with the air.

The federal government should protect trust resources by refusing to implement unnecessary regulatory barriers and complications that compromise the value of Indian minerals that fund essential government services. Including setback requirements in this rule would be such an example of unnecessary regulations. The federal government should not regulate where the tribes already do. While some tribes have passed zoning laws for oil and gas facilities, others include setback provisions in Exploration and Development Agreements or oil and gas leases. Further, EPA should support tribes that exercise their sovereignty. Tribes can determine the appropriate setback distance. Applying state setback requirements to Indian land would undercut tribal negotiations, tribal ordinances, and tribal regulations. Such action would conflict with well-established federal case law and place Indian lessors under the jurisdiction of state requirements that are wholly inapplicable to Indian trust minerals. The Ute Indian Tribe opposes any attempt to apply state law to the Uintah and Ouray Reservation.

It is the duty of tribes to protect the property and wellbeing of lands subject to tribal jurisdiction by establishing setback requirements applicable to such lands. Individual tribal energy offices have the expertise to determine proper distances and when a variance should be granted. Establishing a distance from certain types of structures is a matter of tribal, not federal, concern. Additionally, EPA should not compromise the ability of tribes to include other provisions in setback requirements, limiting operations to more than just a house, structure, or reservoir of water without the surface owner's prior written consent. The federal government implicitly acknowledged this in the Fort Berthold FIP, which does not contain a setback requirement. The EPA must defer to tribes on setback requirements.

Finally, federal regulations already include setback requirements. Indian mineral leases authorized by the IMLA and the 1909 Act contain a provision prohibiting the lessee from drilling within a certain distance of any house or barn on the premises without the lessor's written consent approved by the Secretary. *See* 25 C.F.R. §§ 211.47(f); 212.47(f). This distance is typically two hundred feet. These agreements between Indian mineral owners and mineral lessees, which the Secretary approves, include a bargained for setback requirement.

VI. EPA Should Not Use State Law as a Basis for the Final Rule

EPA requests comments on whether state requirements should be the basis for requirements in surrounding areas under Federal jurisdiction should be used. The Tribe does not believe that it is appropriate to apply state regulations to Indian Country. Just as it would be inappropriate to apply Utah or California state law to the Uintah and Ouray Reservation, it would be inappropriate to apply one state's law to all of Indian Country. For example, applying robust yet costly and burdensome regulations to Indian Country, like those that exist in the State of California, would disadvantage Indian tribes in states more conducive to oil and gas development. By developing reservation or region-specific FIPs, EPA would promote development while also applying, if necessary, an added layer of environmental protection that specifically addresses the Tribe's concerns and the unique characteristics of the region or reservation.

VII. Conclusion

The Tribe appreciates the opportunity to present its comments and concerns regarding the ANPR. The Tribe recommends that EPA use an approach that allows for EPA to develop a FIP specific to the Uintah and Ouray Reservation to implement the Indian Country Minor New Source Review Program. The Tribe prefers a FIP over a permit-by-rule because the FIP can also regulate certain classes of existing sources. EPA should develop a FIP specifically for the Uintah and Ouray Reservation so that it accounts for the unique characteristics of the Reservation and balances regulation of emissions with the Tribe's interest in developing its resources to provide for Tribal members.

To: McCabe, Janet[McCabe.Janet@epa.gov]
Cc: Atkinson, Emily[Atkinson.Emily@epa.gov]; McMichael, Nate[McMichael.Nate@epa.gov]
From: Stewart, Lori
Sent: Thur 12/3/2015 7:13:02 PM
Subject: OAR Shout Out

Dear Colleagues,

There have been so many great accomplishments across OAR recently that it's hard to keep up with them all in a weekly shout out, but I would be remiss if I didn't circle back and thank a truly "exceptional" team from OAQPS, OGC and the Regional Offices.

A few weeks ago, we proposed revisions to the 2007 Exceptional Events Rule – a rule that establishes procedures and criteria for using air quality monitoring data affected by "exceptional events" (such as wildfires, stratospheric ozone intrusions and volcanic activity that can impact air quality). The data that qualifies can then be excluded from regulatory decisions, like designations of nonattainment areas, so it's really important to get the criteria and process right.

Years of experience implementing the original rule led us to conclude that we needed to make some well-considered changes, so the challenge facing our team was how to make it easier to identify and verify these "exceptional events" while maintaining the integrity of the rule - and of our national ambient air quality standards (NAAQS). Last month's proposal comes after lots of discussion with the states and the Departments of Agriculture and Interior, and extensive public engagement. The team also prepared and released a draft guidance document that provides states with additional information on preparing exceptional events demonstrations for wildfires, as they relate to the ozone standards.

This proposal would enable both EPA and affected air agencies to more quickly and accurately identify events, and prepare and expedite exceptional event demonstrations. Many stakeholders are looking forward to seeing this rule and guidance finalized to help them focus their efforts on controllable emissions that are impacting public health. So, this Shout Out goes to the folks who made this happen -- Beth Palma, Melinda Beaver, Lev Grabrilovich, Phil Lorang, Rhea Jones, Krishna Viswanathan, Pam Long, Kirk Baker, Pat Dolwick, Mark Evangelista, and David Mintz from OAQPS, Kristi Smith and Jonathan Skinner-Thompson from OGC, Paula VanLare from OP, Rick Gillam (Region 4), Ruben Casso and Mark Sather (Region 6), Gina Grier (Region 7), Richard Payton (Region 8), Kate Hoag and Michael Flagg (Region 9), Justin Spenillo (Region 10), and many exceptional events experts from these and other Regions.

[court proceedings]

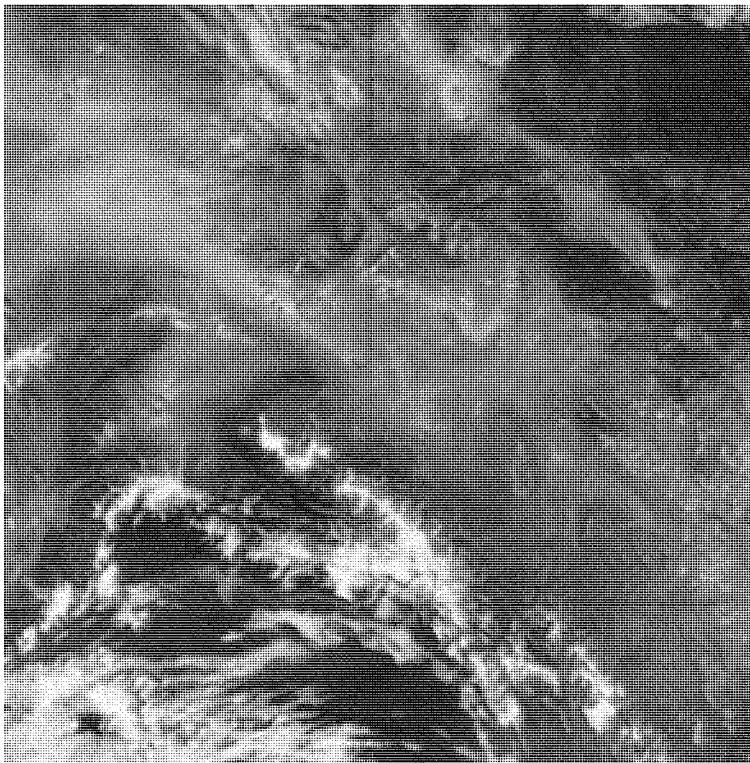
And last but not least, I want to give an additional Shout Out to those who have already given through the CFC (Combined Federal Campaign). Your contributions are really making a difference in the world. If you haven't donated yet, it's not too late (current deadline is December 15)! You can make bi-weekly or one time payroll deductions through employee express via <https://www.employeeexpress.gov> or go to your key worker to fill out a hard copy paper form.

Have a nice weekend everyone.

Janet



Smoke and haze coming off of a wildfire.



NASA satellite image of wildfire smoke over Alaska and Northern Canada

To: Giles-AA, Cynthia[Giles-AA.Cynthia@epa.gov]; McCabe, Janet[McCabe.Janet@epa.gov]
Cc: Cook, Leila[cook.leila@epa.gov]; Shinkman, Susan[Shinkman.Susan@epa.gov]; Werner, Jacqueline[Werner.Jacqueline@epa.gov]; Belser, Evan[Belser.Evan@epa.gov]; Stewart, Lori[Stewart.Lori@epa.gov]
From: Kakade, Seema
Sent: Wed 12/2/2015 8:37:16 PM
Subject: Final materials for CARB call on VW mitigation
[basemap.pdf](#)
[basemapwithozone.pdf](#)
[VW Draft Term Sheet- Share with CARB December 2 2015.docx](#)

Cynthia and Janet:

As per our conversation yesterday, attached are materials for you to share with CARB on VW mitigation.

Please note that we were not totally clear on what you wanted to send to CARB for maps, but are including here a “base map” of just VW sales and then another map that also includes nonattainment areas. Thanks very much to Liz Etchells in OTAQ for her map work.

Please let me know of any comments or concerns.

Thanks,

Seema

Ms. Seema Kakade

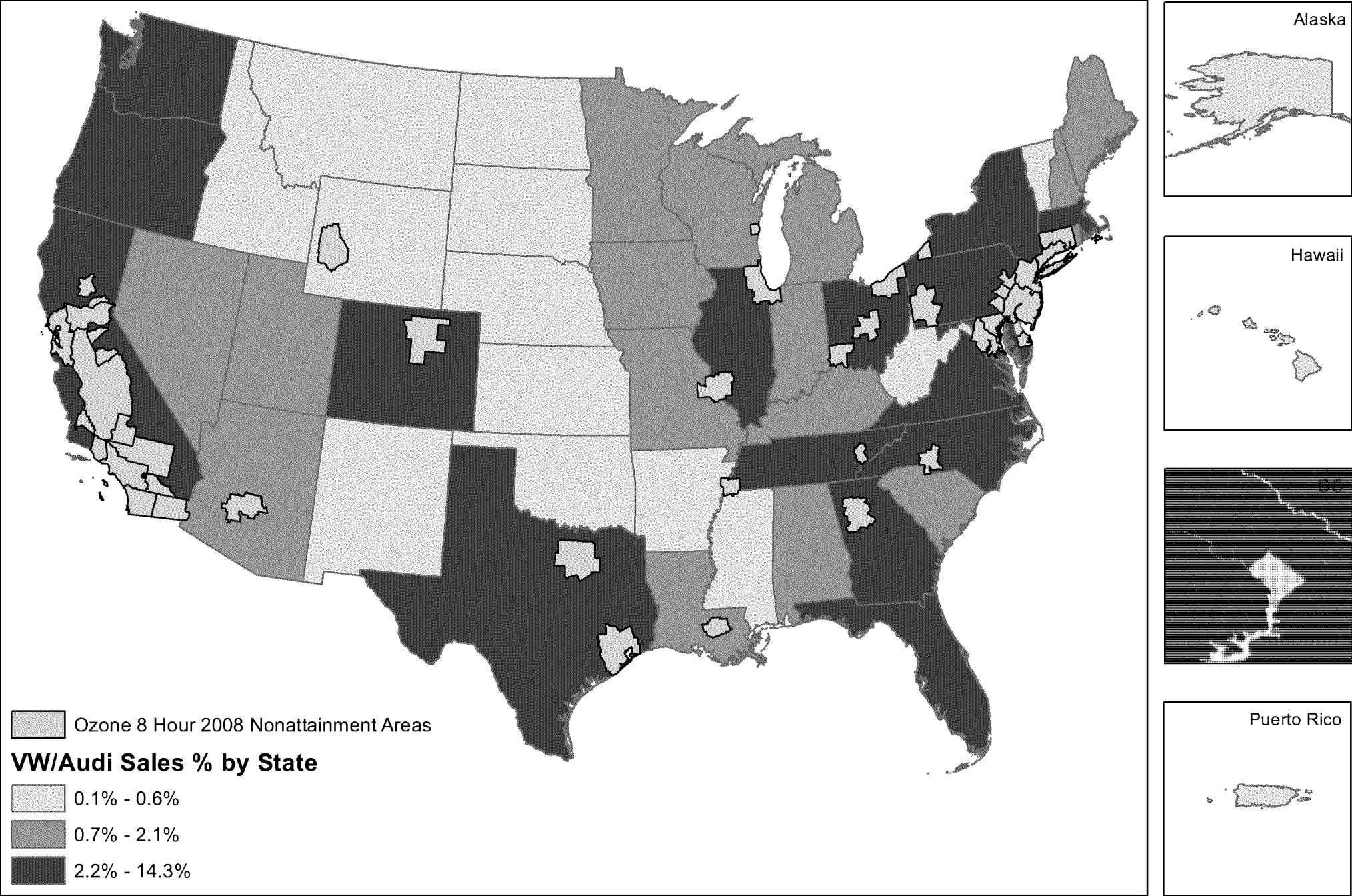
Attorney-Advisor

USEPA/OECA/Air Enforcement Division

202-564-2416

Kakade.seema@epa.gov

Volkswagon/Audi Sales Percent by State and Ozone Nonattainment Areas



To: Stewart, Lori[Stewart.Lori@epa.gov]; Cyran, Carissa[Cyran.Carissa@epa.gov]
Cc: McCabe, Janet[McCabe.Janet@epa.gov]; Page, Steve[Page.Steve@epa.gov]
From: Koerber, Mike
Sent: Tue 12/1/2015 5:02:14 PM
Subject: PR and USVI
OAQPS Activities Related to Puerto Rico and Virgin Islands HEID add1.docx

Here is the summary I mentioned during today's Senior Staff meeting.

Mike

To: McCabe, Janet[McCabe.Janet@epa.gov]; Baugues, Keith[KBaugues@idem.IN.gov]
From: Harvey, Reid
Sent: Wed 11/18/2015 8:09:14 PM
Subject: RE: New transport rule budgets

Janet and Keith:

The compliance periods for the CSAPR NOx ozone season trading program are defined as May 1 to September 30 in our regulations and apply equally to all states in the CSAPR NOx ozone season trading program. The ozone monitoring season dates for individual states do not affect compliance with our ozone season trading program.

Reid

Director, Clean Air Markets Division
Office of Atmospheric Programs/OAR
U.S. Environmental Protection Agency
1200 Pennsylvania Ave., NW (6204J)
Washington, DC 20460

202-343-9429

www.epa.gov/airmarkets

From: McCabe, Janet
Sent: Wednesday, November 18, 2015 2:35 PM

To: Baugues, Keith <KBaugues@idem.IN.gov>; Harvey, Reid <Harvey.Reid@epa.gov>
Subject: RE: New transport tule budgets

Hey Keith---Fair question. I'm copying Reid Harvey, who can answer or direct your question, and thanks for sending it.

Janet

From: Baugues, Keith [mailto:KBaugues@idem.IN.gov]
Sent: Wednesday, November 18, 2015 12:56 PM
To: McCabe, Janet <McCabe.Janet@epa.gov>
Subject: RE: New transport tule budgets

Janet:

I have a question on the new transport budgets and am not sure where to direct it. The budgets are for the ozone season. The current ozone season for Indiana is April – September. The new ozone standard will increase our ozone season from March – October. Do the ozone season budgets in the new transport rule apply to the existing ozone season since they are for the 2008 standard? If not, I think we have a problem.

Thanks for your help.

Keith Baugues

To: McCabe, Janet[McCabe.Janet@epa.gov]
From: Baugues, Keith
Sent: Wed 11/18/2015 5:55:59 PM
Subject: RE: New transport rule budgets

Janet:

I have a question on the new transport budgets and am not sure where to direct it. The budgets are for the ozone season. The current ozone season for Indiana is April – September. The new ozone standard will increase our ozone season from March – October. Do the ozone season budgets in the new transport rule apply to the existing ozone season since they are for the 2008 standard? If not, I think we have a problem.

Thanks for your help.

Keith Baugues

To: McCabe, Janet[McCabe.Janet@epa.gov]; Grundler, Christopher[grundler.christopher@epa.gov]; giles.cynthia@epa.gov[giles.cynthia@epa.gov]
From: Welch, Virgil@ARB
Sent: Tue 11/17/2015 10:12:06 PM
Subject: attached
2015 11 17 Briefing for EPA V02 final.docx

To: McCabe, Janet[McCabe.Janet@epa.gov]; Stewart, Lori[Stewart.Lori@epa.gov]; Simon, Karl[Simon.Karl@epa.gov]; Grundler, Christopher[grundler.christopher@epa.gov]; Garbow, Avi[Garbow.Avi@epa.gov]; OGC Front Office MGMT[OGC_Front_Office_MGMT@epa.gov]; Jordan, Deborah[Jordan.Deborah@epa.gov]
Cc: Dickinson, David[Dickinson.David@epa.gov]; Cohen, Janet[cohen.janet@epa.gov]; Read, David[read.david@epa.gov]; Orlin, David[Orlin.David@epa.gov]; Schmidt, Lorie[Schmidt.Lorie@epa.gov]; Srinivasan, Gautam[Srinivasan.Gautam@epa.gov]
From: Okoye, Winifred
Sent: Mon 11/9/2015 6:06:45 PM
Subject: FW: Oral Argument in challenge to s 209(e) authorization for California's Non road diesel engine standards
[ENV DEFENSE-#712795-v1-ARTBA - DC - Joint Petitioners Brief and Affidav....pdf](#)
[ENV DEFENSE-#724617-v1-ARTBA - DC - CARB Intervenor Brief.PDF](#)
[ENV DEFENSE-#730935-v1-ARTBA - DC - FINAL merits brief \(filed\).PDF](#)
[ENV DEFENSE-#731200-v1-ARTBA - DC - Final Appellants Reply Brief.PDF](#)

Oral argument in Dalton Trucking v. EPA, took place this morning in the D.C. Circuit. **Attorney Client**

Attorney Client

From: Okoye, Winifred

Sent: Thursday, November 05, 2015 10:35 AM

To: McCabe, Janet <McCabe.Janet@epa.gov>; Stewart, Lori <Stewart.Lori@epa.gov>; Simon, Karl <Simon.Karl@epa.gov>; Grundler, Christopher <grundler.christopher@epa.gov>; Garbow, Avi <Garbow.Avi@epa.gov>; OGC Front Office MGMT <OGC_Front_Office_MGMT@epa.gov>; Jordan, Deborah <Jordan.Deborah@epa.gov>

Cc: Dickinson, David <Dickinson.David@epa.gov>; Cohen, Janet <cohen.janet@epa.gov>; Read, David <read.david@epa.gov>; Orlin, David <Orlin.David@epa.gov>; Schmidt, Lorie <Schmidt.Lorie@epa.gov>; Srinivasan, Gautam <Srinivasan.Gautam@epa.gov>

Subject: Oral Argument in challenge to s 209(e) authorization for California's Non road diesel engine standards

On Monday, November 9, the D.C. Circuit will hear oral argument in Dalton Trucking, Inc., v. EPA, in which Dalton Trucking and a host of trucking associations, such as California Construction Trucking Association and the American Road and Transportation Builders Association (ARTBA) challenge EPA's decision to grant an authorization for California to enforce PM and NO_x in-use standards for certain nonroad engines and vehicles.

Attorney Client

Attorney Client

Please let me or David Orlin **Personal Privacy** know if you have any questions.

ORAL ARGUMENT NOT YET SCHEDULED

Nos. 13-1283; 13-1287 (Consolidated)

IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

DALTON TRUCKING, INC., ET AL.;

Petitioners,

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, ET AL.,

Respondent.

On Appeal from the Environmental Protection Agency
EPA-HQ-OAR-2008-0691
78 Fed. Reg. 58,090 (September 20, 2013)

**JOINT OPENING BRIEF OF PETITIONERS DALTON
TRUCKING, INC., ET AL., AND AMERICAN ROAD &
TRANSPORTATION BUILDERS ASSOCIATION**

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D.C. Circuit Bar No. 53056
Pacific Legal Foundation
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Facsimile: (916) 419-7747

*Counsel for Petitioners
Dalton Trucking Inc., et al.*

**CERTIFICATE AS TO PARTIES, RULINGS,
AND RELATED CASES**

Pursuant to Circuit Rule 28(a)(1), the petitioners state as follows:

The petitioners challenge the final action of the respondents published at 78 Fed. Reg. 58,090 (Sept. 20, 2013), entitled, “*California State Nonroad Engine Pollution Control Standards; Off-Road Compression Ignition Engines - In-Use Fleets; Notice of Decision; Notice.*”

(A) Parties and *Amici*

PETITIONERS

Case 13-1283

Dalton Trucking, Inc.; Loggers Association of Northern California, Inc.; Robinson Enterprises, Inc.; Nuckles Oil Company, Inc., dba Merit Oil Company; California Construction Trucking Association, Inc.; Construction Industry Air Quality Coalition; Delta Construction Company, Inc.; Southern California Contractors Association, Inc; Ron Cinquini Farming; and United Contractors.

Case No. 13-1287

American Road and Transportation Builders Association.

RESPONDENTS IN BOTH CASES

United States Environmental Protection Agency and Gina McCarthy in her official capacity as Administrator of the United States Environmental Protection Agency.

INTERVENORS

California Air Resources Board

AMICI

There are no amici at this time.

(B) Rulings Under Review

These petitions for review challenge the Respondents' California waiver decision under the Clean Air Act, set forth in 78 Fed. Reg. 58,090, *et seq.* (Sept. 20, 2013), entitled, "*California State Nonroad Engine Pollution Control Standards; Off-Road Compression Ignition Engines - In-Use Fleets; Notice of Decision; Notice.*

(C) Related Cases

None.

CORPORATE DISCLOSURE STATEMENT

Pursuant to Federal Rule of Appellate Procedure 26.1, and Circuit Rule 26.1, the respective petitioners provide the following disclosures:

Case No. 13-1283

Dalton Trucking, Inc., is a California corporation engaged in the business of operating and leasing loaders, dozers, blades, and water trucks and performs specialized services in open top bulk transportation, lowbed, general freight on flatbeds and vans, as well as rail, intermodal, and 3PL services. Dalton Trucking, Inc., has no parent companies. No publicly held corporation has 10% or greater ownership in Dalton Trucking, Inc.

Loggers Association of Northern California, Inc. (“LANC”) is a nonprofit California trade association representing the interests of its members involved in the logging industry in Northern California. LANC has no parent companies. No publicly held corporation has 10% or greater ownership in LANC.

Robinson Enterprises, Inc. (“Robinson”) is a California corporation engaged in various businesses, including forest products and fuels. Robinson has no parent companies. No publicly held corporation has 10% or greater ownership in Robinson.

Nuckels Oil Co., Inc. dba Merit Oil Company (“Merit Oil Company”) is a California corporation and is a petroleum jobber, wholesaler, and distributor. Merit

Oil Company has no parent companies. No publicly held corporation has 10% or greater ownership in Merit Oil Company.

Construction Industry Air Quality Coalition (“CIAQC”) is a nonprofit California trade association representing the interests of other California nonprofit trade associations and their members whose air emissions are regulated by California state, regional, and local regulations, as well as federal regulations. CIAQC has no parent companies. No publicly held corporation has 10% or greater ownership in CIAQC.

California Construction Trucking Association, Inc. (“CCTA”) is a nonprofit California trade association representing the interests of over 1,000 members involved in a variety of business throughout California whose members own and operate on-road and non-road vehicles, engines, and equipment. CCTA has no parent companies. No publicly traded corporation has 10% or greater ownership in CCTA.

Delta Construction Company, Inc. is a California corporation engaged in the business of road construction, performing services such as road paving, reconstruction, shoulder widening, and fabric installation. Delta Construction Company, Inc., has no parent companies. No publicly held corporation has 10% or greater ownership in Delta Construction Company, Inc.

Southern California Contractors Association, Inc. (“SCCA”) is a nonprofit California corporation representing the interests of construction contractors operating

in Southern California. SCCA has no parent companies. No publicly held corporation has 10% or greater ownership in SCCA.

Ron Cinquini Farming (“Cinquini”) is a farming business located in Central California. Cinquini has no parent companies. No publicly held corporation has 10% or greater ownership in Ron Cinquini Farming.

United Contractors is a trade association representing union-affiliated contractor businesses and associate firms throughout the western United States. United Contractors has no parent company, and no publicly held company has a 10% or greater ownership interest in it.

Case No. 13-1287

Petitioner American Road and Transportation Builders Association states (a) that it is a District of Columbia nonprofit trade organization that represents the collective interests of the U.S. transportation construction industry before the national executive, legislative, and judicial branches of government; (b) that it is an umbrella group for more than 5,000 members from all sectors and modes of the transportation construction industry (including without limitation roads, public transit, airports, ports, and waterways); and (c) that it has no parent corporations and that no publicly held company owns any stock in it.

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<i>*Am. Rd. & Transp. Builders Ass’n v. EPA</i> , 705 F.3d 453 (D.C. Cir. 2013)	2 0 2 9
<i>*Am. Trucking Ass’ns, Inc. v. EPA</i> , 600 F.3d 624 (D.C. Cir. 2010)	3 1 3 6
<i>Americans for Safe Access v. Drug Enforcement Administration</i> , 706 F.3d 438 (D.C. Cir. 2013)	1 7 - 1 8
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<i>*ATK Launch Sys., Inc. v. U.S. EPA</i> , 651 F.3d 1194 (10th Cir. 2011)	2 1 2 7 2 8 3 6
<i>Bennett v. Spear</i> , 520 U.S. 154 (1997)	1 2
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<i>Chevron, U.S.A., Inc. v. Natural Res. Def. Council, Inc.</i> , 467 U.S. 837 (1984)	1 2 2 3

*Authorities upon which we chiefly rely are marked with asterisks.

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GLOSSARY OF ABBREVIATIONS

APA.....	Administrative Procedure Act
ARTBA.....	American Road and Transportation Builders Association
CAA.....	Clean Air Act
CARB.....	California Air Resources Board
CIAQC.....	California Industry Air Quality Coalition
CCTA.....	California Construction Association, Inc.
Delta.....	Delta Construction Company, Inc.
EPA.....	Environmental Protection Agency
FSOR.....	ARB's in a State to Reasons
LANC.....	Loggers Association of Northern California
LEV.....	Low Emission Vehicle
NO _x	Oxides of Nitrogen
PM.....	Particulate Matter
SCCA.....	South California Contract Association, Inc.
SIP.....	State Implementation Plan

JURISDICTIONAL STATEMENT

In these consolidated petitions for review, Petitioners Dalton Trucking, Inc.; Loggers Association of Northern California, Inc.; Robinson Enterprises, Inc.; Nuckles Oil Company, Inc., dba Merit Oil Company; California Construction Trucking Association, Inc.; Construction Industry Air Quality Coalition; Delta Construction Company, Inc.; Southern California Contractors Association, Inc; Ron Cinquini Farming; and United Contractors (the “California Petitioners”) in No. 13-1283, and Petitioner American Road & Transportation Builders Association (“ARTBA”) in No. 13-1287, seek review of the United States Environmental Protection Agency’s (“EPA’s”) final agency action published at 78 Fed. Reg. 58,090 (Sept. 20, 2013) (the “California Nonroad Engine Waiver Decision”) (JA—), granting California’s application under the Clean Air Act, 42 U.S.C. § 7401 *et seq.*, for waiver from federal preemption of California’s *Nonroad Engine Pollution Control Standards - Off-Road Compression Ignition Engines - In-Use Fleets* 13 Cal. Code Regs. §§ 2449-2449.3 (the “Nonroad Engine Rules”). (JA—). On November 18, 2013 (No. 13-1283) and November 19, 2013 (No. 13-1287), the Petitions for Review were filed within the requisite 60-day period under CAA § 307(b)(1), 42 U.S.C. § 7607(b)(1), and this Court has jurisdiction under that provision, as well as under 5 U.S.C. §§ 702, 706.

STATEMENT OF ISSUES

Case No. 13-1283

1. Whether this Court should transfer this case to the Ninth Circuit because the Ninth Circuit is the proper venue for the issues raised.

2. If this Court does not transfer to the Ninth Circuit:

a. Whether EPA applied the correct statutory standard to make the California Nonroad Engine Waiver Decision;

b. Whether section 209(e)(2)(a)(ii) of the Clean Air Act requires EPA to make California waiver decisions based on California's need for the particular air emission standard for which California files a waiver request due to compelling and extraordinary conditions in the state;

c. Whether EPA's position and interpretation that California's "need" for any particular standard refers not to the need for the standard itself but to the need for California to have its own motor vehicle air emissions program "as a whole" is permissible under section 209(e)(2)(a)(ii) of the Clean Air Act.

d. Whether EPA's decision to grant the waiver was arbitrary and capricious or otherwise not in accordance with law.

Case No. 13-1287

In connection with the first question presented in No. 13-1283, ARTBA presents three related or subsidiary questions:

1. Whether EPA's findings of nationwide scope or effect under Clean Air Act § 307(b)(1), 42 U.S.C. § 7607(b)(1), are reviewable?

2. Whether Clean Air Act § 209(e)(2)(B)'s identically and two-year lead time criteria, 42 U.S.C. § 7543(e)(2)(B), preclude states other than California from adopting California's in-use, off-road diesel rule, 13 Cal. Code Regs. §§ 2449-2449.3 (*i.e.*, whether the rule's annually decreasing emission standards now in effect preclude adopting identical standards two years before the rule takes effect), thereby making EPA's waiver determination one that applies only in California.

3. Assuming *arguendo* that the Court can decide the lawfulness of EPA's waiver without addressing the ability of non-California states to adopt California's standard, whether the special statutory review in Clean Air Act § 307(b)(1), 42 U.S.C. § 7607(b)(1), is inadequate or unavailable for ARTBA's question and thereby vests jurisdiction over ARTBA's question in the district court under 5 U.S.C. § 703.

FEDERAL STATUTES AND REGULATIONS

Pertinent statutes, regulations, and legislative history are in the Addendum. (JA—).

STATEMENT OF THE CASE AND FACTS

To encourage travel and commerce throughout the nation, the Clean Air Act ("CAA") preempts individual states from adopting standards relating to the control of emissions from motor vehicles. The CAA's preemption provisions apply to

vehicles used on roads, such as automobiles and trucks, and to nonroad vehicles, such as tractors. Crucially to this case, the CAA singles out California for special treatment. California is permitted to have its own motor vehicle emissions standards if it applies to EPA for a waiver from federal preemption and makes a showing that it needs the waiver to meet “compelling and extraordinary conditions” in the state. 42 U.S.C. § 7543(e)(2)(a)(ii). This case challenges EPA’s California Nonroad Engine Waiver Decision made on September 20, 2013, on the ground that EPA used an impermissible standard for granting the waiver.

Petitioners take the position that the “need” set forth in the CAA refers to California’s need for the specific standard for which a waiver application is made. EPA contests that position, arguing that the “need” standard applies not to California’s specific need for the particular standard but, rather, California’s need to have its own motor vehicle air emissions program “as a whole.” *See* 74 Fed. Reg. at 32,761. JA—. Those divergent views are at the heart of this case.

The CAA mandates that EPA promulgate regulations implementing the waiver provision at issue here, *see* 42 U.S.C. § 7543(e), and in 1994 EPA promulgated regulations implementing that provision. *See* 59 Fed. Reg. 36,969 (July 20, 1994) (“EPA’s 1994 California Waiver Rule”) JA—. The preamble accompanying the rule states that under CAA section 209(e)(2)(A) California may adopt nonroad standards or requirements for eligible nonroad engines or vehicles before receiving EPA

authorization, but enforcement of such rules is conditioned upon EPA's approval. "California may adopt, but not enforce, nonroad standards prior to EPA authorization." 59 Fed. Reg. at 36,982. JA—. EPA's corresponding regulation, now codified at 40 C.F.R. §§ 1074.101(a), (b), specifies that California must "include the record on which the state rulemaking was based" and that EPA "will provide notice and opportunity for a public hearing regarding such requests." *See also* 59 Fed. Reg. at 36,987 (promulgating original version of regulation, at 40 C.F.R. §§ 85.1604(a), (b)(1994)). JA—.

On March 1, 2012, after a state rulemaking process lasting several years, which included two amendments to the original rules submitted to EPA, the California Air Resources Board ("CARB") requested EPA to authorize CARB's current regulations, which require substantial reductions of particulate matter ("PM") and oxides of nitrogen ("NOx") emissions from in-use nonroad diesel fueled equipment (the "Nonroad Engine Waiver Request"). *See generally* 78 Fed. Reg. at 58,093. JA—.

EPA entertained comments on CARB's Nonroad Engine Waiver Request, 77 Fed. Reg. 50,500 (Aug. 21, 2012), JA—, and held a public hearing on September 20, 2012. 78 Fed. Reg. at 58,093, JA—. Comments were received from the California Petitioners and ARBTA during this time. *See id.* at 58,094 n.29 (listing written comments) JA—; *see also* EPA-HQ- OAR-2008-0691 (EPA's ORD Decision

docket; Sept. 20, 2013 EPA public hearing) (hereafter, “ORD Decision docket 0691-xxxx”).¹ JA—.

On September 20, 2013, EPA granted CARB’s request for waiver of authorization of California’s Nonroad Engine Rules, finding that the grounds needed to grant the waiver under CAA section 209(e)(2)(A), 42 U.S.C. § 7543 (e)(2)(A), had been met. 78 Fed. Reg. at 58,091, 58,097, 58,111-19. JA—. EPA further determined that its action was one of “national applicability” for purposes of CAA section 307(b)(1), 42 U.S.C. § 7607(b)(1)². 78 Fed. Reg. at 58,121. JA—.

CARB’s rules establish statewide performance standards applicable to any person, business, or government agency that owns and/or operates in-use non-road diesel vehicles in California with a maximum horsepower (“hp”) of 25 hp or greater. 78 Fed. Reg. at 58,091. JA—. While specific elements of the Nonroad Engine Rules have changed since they were first presented to EPA for approval in 2008, a summary by CARB staff at that time still holds true:

The scope of the regulation is far-reaching: vehicles of dozens of types used in over 8,000 fleets, in industries as diverse as construction, air travel, manufacturing, landscaping, and ski resorts The regulation

¹ All EPA administrative docket entries cited in this motion are available via the publicly-accessible federal website, www.regulations.gov, with “EPA-HQ-OAR-2008-0691” entered as the search term.

² Apparently for the first time in its waiver history, EPA’s oddly worded action combines the “nationally applicability” substance of § 307(b)(1)’s first sentence with the “finds and publishes” procedure of § 307(b)(1)’s third sentence.

would affect the warehouse with one diesel forklift, the landscaper with a fleet of a dozen diesel mowers, the county that maintains rural roads, the landfill with a fleet of dozers, as well as the large construction firm or government fleet with hundreds of diesel loaders, graders, scrapers, and rollers.

ORD Decision docket 0691-0002 at 1. JA—.

By its terms, the Nonroad Engine Rules apply to engines used in fleets of nonroad vehicles, defined, *inter alia*, as vehicles that cannot be registered and driven safely on-road, or vehicles that were not designed to be driven on-road, even if modified so they can be driven on-road safely. ORD Decision docket 0691-0292, at 1 (CARB Final Regulation Order, promulgating Cal. Code Regs. tit. 13, § 2449(b)(1)). JA—. ³

Importantly, the Nonroad Engine Rules require PM and NO_x reductions for qualifying fleets on a phased-in basis, with reductions imposed on large fleets (defined as fleets with a total horsepower greater than 5,000 hp) in 2014, medium fleets (between 2,500 and 5,000 hp) in 2017, and small fleets (2,500 hp or less) in 2019. ORD Decision docket 0691-0292, at 40-42 (promulgating Cal. Code Regs. tit. 13, § 2449.1(a) & Tables 3-4) JA—.

³ Specific categories of diesel fleets are excluded from the ORD Fleet Requirements, including, *inter alia*, recreational off-highway vehicles, husbandry implements, vehicles used solely for agriculture, and “off-road vehicles owned and operated by an individual for personal, non-commercial, and non-governmental purposes.” ORD Decision docket 0691-0292, at 2 (promulgating Cal. Code Regs. tit. 13, § 2449(b)(2)(G)).

The Nonroad Engine Rules apply to any qualifying vehicles operating within California. The rules define “fleet” as “all off-road vehicles and engines owned by a person, business or government agency that are operated within California and are subject to the regulation. A fleet may consist of one or more vehicles. A fleet does not include vehicles that have never operated in California.” ORD Decision docket 0691-0292, at 5 (promulgating Cal. Code Regs. tit. 13, § 2449(c)(20)). JA—. Both older and “new fleets”—the latter, defined as a fleet “that is acquired or that enters California on or after January 1, 2012”—are covered by the rule. ORD Decision docket 0691-0292, at 8 (promulgating Cal. Code Regs. tit. 13, § 2449(c)(34)). JA—. New fleets “may include new businesses or out-of-state businesses that bring vehicles into California for the first time on or after January 1, 2012.” *Id.*

At EPA’s September 2012, public hearing on CARB’s waiver application, a CARB official (Eric White, Assistant Chief, CARB Mobile Source Control Division) stated that:

The regulation applies equally to all equipment that is operated in the state, regardless of where the fleet is located. So if you are a fleet that is wholly contained within the State of California, all of your equipment would be subject to this regulation. If you’re a fleet that is a multi-state, has a multi-state presence, only the equipment that you would operate within the state of California would be subject to this regulation.

ORD Decision docket 0691 at 122-23 (Sept. 20, 2012 public hearing transcript). JA—. EPA granted the waiver request on September 20, 2013. 78 Fed. Reg. 58,090, *et seq.* These consolidated actions followed EPA's waiver grant.

SUMMARY OF ARGUMENT

Because the Nonroad Engine Rules apply only to equipment operated in California, they are of regional or local applicability and not of national applicability. Accordingly, this case should not be decided by this Court but by the Ninth Circuit. 42 U.S.C. § 7607(b)(1) (“A petition for review of . . . any . . . final action of the Administrator under this chapter . . . which is locally or regionally applicable may be . . . [decided] *only* in the United States Court of Appeals for the appropriate circuit.”) (Emphasis added). On behalf of its non-California members, ARTBA argues that the California rules' declining annual emission-rate standards make it impossible for states other than California to opt into this particular California standard, within the Clean Air Act's requirements for opt-in states' identity to the California Standards with a two-year leadtime. 42 U.S.C. § 7543(e)(2)(B). To the extent that this Court retains jurisdiction and resolves the merits without addressing ARTBA's question about non-California states, this Court should transfer ARTBA's petition to the United States District Court for the District of Columbia because the Clean Air Act's “special statutory review” is unavailable or inadequate. 28 U.S.C. § 1631. Both the California

Petitioners and ARTBA agree, however, that because California is located in the Ninth Circuit's jurisdiction, that is the only appropriate venue for this action.

In the event this Court does not transfer the case to the Ninth Circuit for merits review, the Court should vacate EPA's California Nonroad Engine Waiver Decision and remand it to the Agency. Section 209(e)(2)(A)(ii) of the CAA provides that EPA may authorize California to adopt and enforce on a case-by-case basis standards for nonroad engines and vehicles that differ from the federal ones, but "no such authorization shall be granted if [EPA] finds that . . . California does not need such California standards to meet compelling and extraordinary conditions." Thus (1) California must apply for a waiver from federal standards for each nonroad mobile source emission standard it seeks to enforce, and (2) EPA may not grant any waiver application unless California makes a showing that it has "compelling and extraordinary conditions" necessitating the standards for which waiver is sought.

The record does not show that California needs the Nonroad Engine Rules to meet compelling and extraordinary conditions in the state. Accordingly, the CAA prohibits EPA from granting the waiver application.

EPA takes the position that California's "need" for any particular emissions standard refers not to the need for the standard itself, but to the "need" for California to have its own motor vehicle air emissions program "as a whole." *See* 74 Fed. Reg. at 32,761. JA—.

Such an interpretation is impermissible under the CAA.

Section 209(e)(2)(A)(ii) refers to California's need for the particular standard for which a waiver application is made. "Congress intended the word 'standard' in section 209 to mean quantitative levels of emissions." *Motor and Equip. Mfrs. Ass'n, Inc. v. Environmental Protection Agency*, 627 F.2d 1095, 1112-13 (D.C. Cir. 1979) ("*MEMA P*") (citing Senate Report on Air Quality of 1967, S. Rep. No. 403, 90th Cong., 1st Sess. 32 (1967)). JA—. There is no indication in the Act that by using the term "standard" Congress really meant "program." As stated by the Supreme Court with specific reference to Section 209, "a standard is a standard" and not something else.⁴ *Engine Mfrs. Ass'n v. S. Coast Air Quality Mgmt. Dist.*, 541 U.S. 246, 254 (2004). EPA did not make its waiver decision based on California's need for the standards set forth in the Nonroad Engine Rules. Rather it made the waiver decision based upon whether California needs its own motor vehicle regulatory program "as a whole." In so doing, EPA used the wrong test to grant the waiver. Accordingly, EPA's waiver decision should be vacated and remanded, with instructions to use the test actually authorized by the CAA.

⁴ The Supreme Court further construed the term "standards" as used in Section 209 to "denote . . . numerical emissions levels with which vehicles or engines must comply." *Engine Mfrs.*, 541 U.S. at 253. *See Adamo Wrecking Co. v. United States*, 434 U.S. 275, 286 (1978) ("standard" means a quantifiable level of emissions to be attained by the use of techniques, controls, and technology).

STANDARD OF REVIEW

The Court sets aside agency action or inaction when (1) the agency fails to comply with a nondiscretionary statutory duty, *Bennett v. Spear*, 520 U.S. 154, 172 (1997); (2) the agency action is “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law” or “without observance of procedure required by law,” 5 U.S.C. § 706, 42 U.S.C. § 7607(d)(9); or (3) the action contradicts congressional intent, *Chevron, U.S.A., Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837, 843 n.9 (1984).

STANDING

Declarations of the Petitioners are submitted herewith. Petitioner Delta Construction Company, Inc. (“Delta”), owns and operates a business that utilizes non-road vehicles powered by diesel engines subject to the CARB Nonroad Engine Rules. Norman Brown Decl. ¶¶ 3, 5. JA—. Delta is a member of the California Construction Trucking Association. *Id.* ¶ 2.

Before EPA made its California Nonroad Engine Waiver Decision, CARB could not enforce the rule. *Id.* at ¶ 6. Because of EPA’s California Nonroad Engine Waiver Decision, CARB can enforce the rule. *Id.*; 59 Fed. Reg. at 36,982. JA—. Delta is concretely injured by the rule because the rule requires Delta to purchase expensive retrofit equipment in order to comply with the emissions standards set forth in the rule. Norman Brown Decl. ¶ 6. If Delta had the capital or credit necessary to

purchase the new retrofit equipment for all of its vehicles subject to the rule, it would do so. *Id.* at ¶ 8. But Delta does not have the capital or the credit required to purchase for all of its vehicles the expensive new equipment mandated by the CARB Nonroad Engine Rules. *Id.* At the same time, Delta is prohibited from operating its off-road diesel vehicles without retrofitting them in compliance with the rules. *Id.*

Because the cost of retrofitting is prohibitive, Delta was forced to take out of service a number of nonroad vehicles, in order to get below the current applicability threshold of 5,000 horsepower, resulting in the instant destruction of the value of the equipment, a decrease in Delta's ability to maintain its former workload, and a consequent loss of profit reflected on its balance sheet. *Id.* at 9. As a result, Delta's ability to borrow money to support even the reduced current operations has been severely damaged. *Id.* Because of the reduction in horsepower capacity, Delta has also been forced to refrain from bidding on new jobs that require the additional capacity, resulting in layoffs of experienced and valuable employees. *Id.*

Even with the decrease in total horsepower capacity and consequent loss of profits, employees, and business opportunities stemming from the rules, Delta will be subject to the full retrofit requirements in 2019, when the phase-in period terminates and all of Delta's nonroad equipment will be covered by the rules. *Id.* at ¶ 10. Because its business prospects have been severely damaged by the rules, Delta will not be able to afford the retrofits required in 2019. As a result, Delta will be forced

either to go out of business or find ways of cutting costs in other areas by further changing or reducing its business activities. *Id.* In either event, this will likely mean layoffs of employees, and a negation or reduction of profitability. *Id.*

These adverse impacts have injured and will continue to injure Delta, as long as EPA's California Nonroad Engine Waiver Decision (sometimes referred to as "EPA's Waiver Grant") remains effective and in place. *Id.* ¶ 11. If EPA's Waiver Grant were to be vacated, Delta would no longer be injured by the cost increases attributable to the CARB Nonroad Engine Rules because CARB would no longer be authorized to enforce them. Accordingly, Delta would no longer suffer the economic losses caused by EPA's Waiver Grant. *Id.* ¶ 12.

Petitioner Dalton Trucking, Inc. is also concretely injured by EPA's waiver grant for the Nonroad Engine Rule because the rule requires Dalton to purchase expensive retrofit equipment, if it is to stay in business, in order to comply with the rule's emissions standards. Klenske Decl. ¶ 5-6; JA—. Dalton is a member of the California Construction Trucking Association, Inc. *Id.* ¶ 2.

Dalton is injured by the rule and the waiver grant because Dalton will incur additional costs to purchase the retrofit equipment for its existing vehicles or will be required to take them out of service. *Id.* at ¶ 7. As a result, Dalton will lose operating funds and borrowing ability, resulting in reduction in profitability, cash flow problems affecting business operations, and possible layoffs of employees, all of which will

adversely impact Dalton's Business. *Id.* These adverse impacts have injured and will continue to injure Dalton as long as EPA's Waiver Grant remains effective and in place. *Id.* ¶ 8. If EPA's Waiver Grant were to be vacated, Dalton would no longer be injured by the cost increases attributable to the CARB Nonroad Engine Rules because CARB would no longer be authorized to enforce them. *Id.* ¶ 9. *See* 59 Fed. Reg. at 36,982. Accordingly, Dalton would no longer suffer the economic losses caused by EPA's Waiver Grant. *Id.*

Petitioner California Construction Trucking Association, Inc., ("CCTA") is a trade association representing businesses and individuals concretely injured by the rule and the waiver grant in that they utilize nonroad vehicles in their businesses. The vehicles are subject to the rule's emissions standards and CCTA's members are now required to purchase expensive retrofit equipment in order to comply with the emissions standards set forth in the rule. Lee Brown Decl. ¶¶ 3, 5. JA—. CCTA members are injured by the rule because they either incur additional costs to purchase the expensive new retrofits for the equipment they use in their businesses or are required to take the equipment out of service. *Id.* at ¶ 7.

For CCTA members that have the cash or credit to purchase the expensive retrofits, they are injured because they lose operating funds and borrowing ability, resulting in reduction of profitability, severe cash flow problems affecting business operations, and layoffs of employees. *Id.* Other members cannot afford to install the

expensive retrofits mandated by the rules and have been forced to take out of service a number of nonroad vehicles, in order to get below the current applicability threshold of 5,000 horsepower, resulting in the instant destruction of the value of the equipment, a decrease in their ability to maintain their former workload, and a consequent loss of profit reflected on their balance sheets. *Id.* ¶ 8. As a result, they will either go out of business or find ways of cutting costs in other areas by further changing or reducing their business activities. *Id.* In either event, this will mean further layoffs of employees, a negation or further reduction of profitability, and, in some cases, business shutdowns. *Id.* These adverse impacts have injured and will continue to injure the members of CCTA, as long as the waiver grant remains effective and in place. *Id.* ¶ 9. If EPA's Waiver Grant were to be vacated, the members of CCTA would no longer be injured by the cost increases attributable to the CARB rules because CARB would no longer be authorized to enforce them. *Id.* ¶ 10. *See* 59 Fed. Reg. at 36,982. Accordingly, CCTA members would no longer suffer the economic losses caused by EPA's Waiver Grant. Lee Brown Decl. ¶ 10.

One of the missions of CCTA is to preserve and foster regulatory programs that encourage the use of business equipment for the duration of its useful life without the need for stringent retrofits or replacements. To that end, CCTA has been forced to expend its resources on challenging EPA's Waiver Grant. *Id.* ¶ 11. These are resources that CCTA could have devoted to accomplish its other missions, such as

representing the interests of its members in a variety of other contexts, including legislative and regulatory reforms to benefit its members in a variety of ways, such as encouraging, among other things, highway and infrastructure repair for the safety of CCTA members. *Id.* The channeling of resources away from accomplishing those important goals of CCTA has directly injured CCTA as an organization. *Id.* That injury will be redressed if EPA's Waiver Grant is vacated because CCTA will no longer be required to devote any resources to challenging or encouraging amendment or repeal of the CARB rules. *Id.*

These adverse impacts have injured and will continue to injure the members of CCTA, as long as EPA's Waiver Grant remains effective and in place. *Id.* ¶ 8. If EPA's Waiver Grant were to be vacated, the members of CCTA would no longer be injured by the cost increases attributable to the CARB Off-Road Diesel Rules because CARB would no longer be authorized to enforce them. Accordingly, the members of CCTA would no longer suffer the economic losses caused by EPA's Waiver Grant. *Id.* ¶ 9. *See* 59 Fed. Reg. at 36,982.

If any one of the Petitioners has standing, the case may proceed.⁵ *Americans for Safe Access v. Drug Enforcement Administration*, 706 F.3d 438, 443 (D.C. Cir.

⁵ To the extent that ARBTA must establish its standing independently of the California Petitioners, ARBTA has members outside California who would benefit in the form of avoided retrofit costs if this Court rules that Non-California states cannot opt into the California retrofit rules. Declaration of Lawrence J. Joseph, ¶¶ 4-13; *ARBTA v. EPA*, 588 F.3d 1109, 1111-12 (D.C. Cir. 2009).

2013). Accordingly, this challenge to the waiver grant presents a “case or controversy” under Article III of the United States Constitution. *See* D.C. Cir. Rule 28(a)(7).

ARGUMENT

I

THIS COURT IS NOT THE PROPER VENUE FOR THESE PETITIONS FOR REVIEW

These cases challenge EPA’s California Nonroad Engine Waiver Decision. The CAA provides that if the decision is of national applicability, the challenge must be filed “*only* in the United States Court of Appeals for the District of Columbia.” 42 U.S.C. § 7607(b)(1). (Emphasis added.) But if the decision is merely “locally or regionally applicable,” petitions for review “may be filed *only* in the United States Court of Appeals for the appropriate circuit,” unless EPA’s “action is based on a determination of nationwide scope or effect *and* if in taking such action [EPA] finds and publishes that such action is based on such a determination.” *Id.* (Emphasis added). Although EPA made and published a finding of “national applicability” in its waiver notice, 78 Fed. Reg. at 58,121,⁶ both the California Petitioners and ARTBA argue that the EPA waiver and the underlying California rules make this Court an improper venue under § 307(b)(1). The EPA decision at issue here applies solely in

⁶ As indicated in note 2 *supra*, EPA did not actually make the finding of “nationwide scope or effect” required by § 307(b)(1)’s third sentence.

California, because it approves California's Nonroad Engine Waiver Request which both legally and factually applies only in California.

A. EPA's Findings Under Section 307(b)(1) Are Reviewable

The mere expression of EPA's conclusion that venue is proper in this Court is insufficient, and the mere fact EPA made a determination does not, of itself, mean that the determination is correct. To hold otherwise would run afoul of the well established principle that judicial review of agency action is presumed. *Abbott Labs. v. Gardner*, 387 U.S. 136, 141 (1967) (“[O]nly upon a showing of ‘clear and convincing evidence’ of a contrary legislative intent should the courts restrict access to judicial review.” (citation omitted)); see *Oregon Natural Res. Council v. U.S. Forest Service*, 834 F.2d 842, 851 (9th Cir. 1987) (judicial review inferred unless clearly cut off by Congress).

Under § 307(b)(1), review of the California Nonroad Engine Waiver Decision must take place either in the Ninth Circuit or here. Whether it presents a question of jurisdiction or merely of venue, § 307(b)(1) presents a justiciable question that this Court must address before proceeding to the merits. First, jurisdictional questions are antecedent to merits questions, *Steel Co. v. Citizens for a Better Env't*, 523 U.S. 83, 118 (1998) (citing *U.S. v. Mine Workers*, 330 U.S. 258, 290 (1947)), which the parties cannot waive. *Id.* at 94 (citing *Ex parte McCardle*, 74 (7 Wall.) U.S. 506, 514 (1869)). Second, even questions of venue must be resolved unless the party objecting

to venue fails to raise it “seasonably.” *Panhandle Eastern Pipe Line Co. v. Federal Power Comm’n*, 324 U.S. 635, 638-39 (1945). Indeed, like jurisdiction, venue under § 307(b)(1) is mandatory and requires dismissal (or transfer) if venue is improper in this Court. *Am. Rd. & Transp. Builders Ass’n v. EPA*, 705 F.3d 453, 455-56 (D.C. Cir. 2013). For present purposes, therefore, it does not appear to matter whether § 307(b)(1) goes to jurisdiction or merely to venue.

EPA does not appear to dispute that this action belongs in the Ninth Circuit under § 307(b)(1)’s second sentence unless EPA successfully invoked § 307(b)(1)’s third sentence to shift review here. That third sentence uses the word “and” twice. The action must be based on a determination of nationwide scope or effect, *and* EPA must find *and* publish that its action is based on such a determination. To read the statute, these “ands” must be read conjunctively. *See Crooks v. Harrelson*, 282 U.S. 55, 58 (1930); *OfficeMax, Inc. v. U.S.*, 428 F.3d 583, 584 (6th Cir. 2005) (“traditional presumption that Congress uses ‘and’ conjunctively”); 1A Norman J. Singer, *Statutes and Statutory Construction* 21.14 at 178-79 (7th Ed. 2009). That second “and” means that it is not enough for EPA merely to publish a nationwide-scope-or-effect statement; there has to be an underlying finding, and that EPA action—like all agency action—is presumptively reviewable. *Dunlop v. Bachowski*, 421 U.S. 560, 567 (1975); *Heckler v. Chaney*, 470 U.S. 821, 830 (1985). Here, nothing rebuts that

presumption of reviewability, and this Court is not bound by whatever EPA asserts in the Federal Register.

Indeed, several courts of appeal have provided review on the question of which circuit represents the appropriate circuit for review under § 307(b)(1). *See, e.g., New York v. EPA*, 133 F.3d 987, 990 (7th Cir. 1998); *ATK Launch Sys., Inc. v. U.S. EPA*, 651 F.3d 1194, 1197 (10th Cir. 2011); *Madison Gas & Elec. Co. v. U.S. EPA*, 4 F.3d 529, 530-31 (7th Cir. 1993). Accordingly, this Court can and must answer the question—whether jurisdictional or merely related to venue—of what court is the appropriate court to hear this case.

As explained in Section I.C.4, *infra*, as a matter of law EPA has no supportable bases for concluding that the California Nonroad Engine Waiver Decision triggered § 307(b)(1)'s third sentence. Abuses of discretion based on mistaken legal conclusions are not only reviewable but reviewable de novo. *Cooter & Gell v. Hartmarx Corp.*, 496 U.S. 384, 405 (1990). Accordingly, there is no barrier to reviewing which court—this one or the Ninth Circuit—should hear this case.

**B. This Court Should Transfer This Case To
The Ninth Circuit Because the EPA Waiver
Decision Applies Only in the State of California**

The EPA decision at issue here applies solely in California, because it approves California's Nonroad Engine Waiver Request. But the CAA provides that other states may adopt a California motor vehicle emissions standard when EPA grants a waiver

to California for that standard. 42 U.S.C. § 7543(e)(2)(B). Because EPA has granted a waiver to California for its Nonroad Engine Rules, which are at issue here, there is an issue of whether the rule is of national or of regional applicability.

Because the CAA's 60-day filing deadline is jurisdictional, the California Petitioners protectively filed petitions for review both in this Court (Case No. 13-1283) and in the Ninth Circuit (Case No. 13-74019). In an Order dated February 4, 2014, this Court granted an unopposed motion to hold Case No. 13-1283 (and its consolidated case, 13-1287) in abeyance, in order to allow the Ninth Circuit to rule on the Federal Respondent's motion to dismiss filed in the Ninth Circuit. Document # 1478151.

The briefing on the motion to dismiss in the Ninth Circuit has been completed, but the Ninth Circuit has not made a determination regarding that motion. Rather, on March 11, 2014, the Ninth Circuit *sua sponte* ordered that the motion to dismiss be held in abeyance "pending a determination by the United States Court of Appeals for the District of Columbia Circuit as to whether petition Nos. 13-1283 and 13-1287 were properly filed in that court pursuant to 42 U.S.C. § 7607(b)(1)." This Court ordered that the venue issue be addressed by the parties in the briefing on the merits.

The California Petitioners ask this Court to transfer these consolidated cases to the Ninth Circuit for resolution in connection with Case No. 13-74019 pending in that

Circuit. The language of Section 307(b)(1) of the CAA is dispositive. In pertinent part, it states:

A petition for review of . . . any . . . nationally applicable . . . final action taken by the Administrator . . . may be filed *only* in the United States Court of Appeals for the District of Columbia. A petition for review of . . . any . . . final action of the Administrator under this chapter . . . which is locally or regionally applicable may be filed *only* in the United States Court of Appeals for the appropriate circuit. Notwithstanding the preceding sentence a petition for review of any action referred to in such sentence may be filed only in the United States Court of Appeals for the District of Columbia if such action is based on a determination of nationwide scope or effect and if in taking such action the Administrator finds and publishes that such action is based on such a determination.

42 U.S.C. § 7607(b)(1) (emphasis added). The first sentence provides that petitions for review of nationally applicable final actions may be brought only in the D.C. Circuit. Accordingly, in order for this Court to have exclusive jurisdiction, EPA's decision must be, in fact, nationally applicable, and there is no ambiguity on that score. *Chevron, U.S.A., Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. at 842-43 (“First, always, is the question whether Congress has directly spoken to the precise question at issue. If the intent of Congress is clear, that is the end of the matter; for the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress.”).

The second sentence provides that locally or regionally applicable actions may be brought only in the court of appeals for the circuit with jurisdiction over the specific locality or region, while the third sentence modifies the second sentence (but

not the first sentence) by stating that a published EPA determination of national scope or effect brings the venue requirement back into the D.C. Circuit. Because the third sentence does not modify the first sentence, the plain and clear requirement of the first sentence still applies. Namely, decisions that are in fact nationally applicable are the only ones which are required to be challenged exclusively in the D.C. Circuit. Accordingly, it is not sufficient under 42 U.S.C. § 7607(b)(1) for EPA merely to make and publish a finding setting forth its conclusion that its action is of nationwide scope or effect.⁷ The “determination” itself must in fact relate to an issue that is, objectively, one of nationwide scope or effect. Otherwise, EPA could subvert the first sentence merely by making a finding under the third sentence, thereby negating the first sentence. That is impermissible. *Moskal v. United States*, 498 U.S. 103, 109 (1990) (courts must give effect to every clause and word of a statute).

Accordingly, reading the subsection as a whole, the finding described in the third sentence requires that EPA’s “determination” relate to one or more matters whose scope or effect is actually nationwide. *See* Section I.A, *supra*. The facts show that the waiver is not of nationwide scope or effect.

The waiver grant applies only in California. No nonroad vehicles operating outside of California need comply with the California standards. No other state is

⁷ As indicated in note 2, *supra*, EPA did not actually make the finding of nationwide scope or effect that § 307(b)(1)’s third sentence requires.

required to adopt the California standards. An observation made by a CARB official at a public hearing held on the waiver application confirms:

So if you are a fleet that is wholly contained within the state of California, all of your equipment would be subject to this regulation. If you're a fleet that is a multi-state, has a multi-state presence, only the equipment that you would operate within the state of California would be subject to this regulation.

Off-Road Diesel Decision docket 0691, at 122-23 (Sept. 20, 2012 public hearing transcript). JA—. Accordingly, the criterion required to trigger the applicability of the first sentence has not been met because the waiver decision is not in fact nationally applicable.

Notwithstanding the foregoing admission by a CARB official during a hearing on the waiver application, EPA made a finding that the granting of the waiver application has effect not only beyond the State of California but that it is of nationwide scope or effect. EPA provides no defensible support for its finding other than a bare conclusion that the grant waiver “will indirectly affect” some outside of California:

My decision will indirectly affect . . . entities outside the state who must comply with California's requirements. For this reason, I determine and find that this is a final action of national applicability for purposes of section 307(b)(1) of the Act. Pursuant to section 307(b)(1) of the Act, judicial review of this final action may be sought only in the United States Court of Appeals for the District of Columbia Circuit. Petitions for review must be filed by November 19, 2013. Judicial review of this final action may not be obtained in subsequent enforcement proceedings, pursuant to section 307(b)(2) of the Act.

78 Fed. Reg. 58,090, 58,121 (Sept. 20, 2013). JA—. Based on its unsubstantiated determination, EPA asserts that challenges to the waiver grant may only be brought in the D.C. Circuit. An administrative agency is not, and cannot be, the final arbiter of which courts have jurisdiction to review decisions made by the agency. *Weinberger v. Salfi*, 422 U.S. 749, 750-51 (1975) (court determines jurisdictional issues); *Kaufman v. Allstate New Jersey Ins. Co.*, 561 F.3d 144, 151 (3d Cir. 2009) (court of appeals determines jurisdictional issues de novo).

Accordingly, the substantive issue for this Court is whether the waiver grant is, in fact, nationally applicable under the first sentence of 42 U.S.C. § 7607(b)(1).

1. The Waiver Grant Is Not Nationally Applicable

The grant of the waiver application here affects CARB and those who operate equipment covered by the Nonroad Engine Rules. As EPA acknowledged:

The decision to grant or deny the authorization request directly affects the legal rights of the party before EPA, California. If EPA grants the authorization, then CARB may enforce its state regulations. Other parties, for example, the fleet operators, may be indirectly affected because state regulation is no longer preempted.

78 Fed. Reg. at 58,121. JA—. Thus, the waiver grant impacts CARB and those who operate equipment in California subject to the regulation. Those who do not operate covered equipment in California are not impacted by the regulation. The plain meaning of a “nationally” applicable action is that the action applies nationally. *See Perrin v. United States*, 444 U.S. 37, 42 (1979) (Unless otherwise defined, words are

construed “as taking their ordinary contemporary, common meaning.”). The action at issue here does not affect the nation because it only affects CARB and those who are subject to its regulations, namely, operators of nonroad diesel engines in California. It is true that fleet operators outside of California may choose to subject themselves to the requirements if they undertake to operate such equipment in California. But nothing requires them to do so. The mere possibility that some may choose to do so does not, of itself, make the waiver decision nationally applicable.

Similarly, although the parties dispute whether non-California states may lawfully adopt these particular California standards, it is factually indisputable that other states had not done so at the time of EPA’s finding (or yet). But whether or not other states adopt these California standards at some point in the future is irrelevant to the question of whether EPA’s waiver grant is itself nationally applicable. Whether other states may choose to adopt the California standard for which the waiver was granted is currently unknowable. Speculation regarding such possible adoptions by other states does not make the California emission standard applicable nationally.

This Court has taken the position that the face of the regulation determines national applicability. *Natural Res. Def. Council, Inc. v. Thomas*, 838 F.2d 1224, 1249 (D.C. Cir. 1988). The Tenth Circuit concurs. *See ATK Launch Sys., Inc.*, 651 F.3d at 1197 (“[T]he Clean Air Act provision makes clear that [courts] must analyze whether the regulation itself is nationally applicable, not whether the effects

complained of . . . is (sic) nationally applicable.”). Moreover “[d]etermining whether an action by the EPA is regional or local on the one hand or national on the other should depend on the location of the persons or enterprises that the action regulates.” *State of New York v. EPA*, 133 F.3d 987, 990 (7th Cir. 1998). Here, the only “persons or enterprises that the action regulates” are those who choose to do business in California by operating covered equipment within the state. No other person, activity, enterprise, or equipment is impacted.

For an administrative action to be “nationally applicable,” it must be applicable to more than one limited geographic area. *ATK Launch Sys.*, 651 F.3d at 1197 (regulation applicable “coast to coast and beyond” is nationally applicable); *State of Texas v. EPA*, No. 10-60961, 2011 WL 710598, at *3 (5th Cir. Feb. 24, 2011) (EPA’s SIP call applicable to 13 states located throughout the nation and not limited to a contiguous geographic area is nationally applicable).⁸

2. This Court Has Never Held That California Waiver Decisions Are Categorically Nationally Applicable

It is true that, in the past, this Court has decided some California waiver challenges. *See, e.g., Motor & Equip. Mfrs. Ass’n, Inc. v. EPA*, 627 F.2d 1095 (D.C. Cir. 1979); *Motor & Equip. Mfrs. Ass’n v. Nichols*, 142 F.3d 449 (D.C. Cir. 1998).

⁸ Because this opinion is unpublished, and therefore not precedent even in the Fifth Circuit, it is cited only for its persuasive value. *See* Fed. R. App. P. 32.1(a).

But the specific issue of whether those challenges addressed nationally or regionally applicable final agency actions was never raised and, consequently, has never been, squarely addressed by this Court. *See Waters v. Churchill*, 511 U.S. 661, 678 (1994) (“[C]ases cannot be read as foreclosing an argument that they never dealt with.”).

A recent decision of this Court is relevant to whether the EPA final action here is nationally or regionally applicable. In that case, the petitioner filed petitions for review of EPA’s approval of a California State Implementation Plan (“SIP”) based on the SIP’s allegedly illegal implementation of Section 209(e) of the CAA and EPA’s refusal to amend its regulations thereunder. Because the petitioner was unsure whether the correct court was the D.C. Circuit or the Ninth Circuit, it filed protectively in both courts. The D.C. Circuit held that the EPA determination was of regional and not national applicability and granted the government’s motion to dismiss. *Am. Road & Transp. Builders Ass’n v. EPA*, 705 F.3d 453 (D.C. Cir. 2013). Had the petitioner filed only in the D.C. Circuit, it may have been foreclosed from challenging EPA’s determination in any court, because of the CAA’s 60-day filing requirement. And that is one of the reasons the California Petitioners here filed protectively in both circuits.

To the extent there is any ambiguity as to whether the decision challenged in this case is nationally or regionally applicable, this Court should transfer the case to the Ninth Circuit, for the following reasons.

3. It Is Appropriate for This Court to Transfer This Case to the Ninth Circuit Because the Nexus of the Parties and Subject Matter Is More Closely Aligned to the Ninth Circuit than to This Court

For five reasons, this Court should transfer the case to the Ninth Circuit. First, the subject matter of the litigation and the specific *equipment* covered by the California Nonroad Engine Rules are located exclusively within California and, therefore, exclusively within the Ninth Circuit. Second, the actual *geographic territory* covered by EPA's grant of the waiver application is located exclusively within California and, therefore, exclusively within the Ninth Circuit. Third, CARB, which applied for and was granted the waiver, has jurisdiction only over California air emissions and, accordingly, operates exclusively within the Ninth Circuit. Fourth, the judges of the Ninth Circuit are more familiar with local conditions and issues in California than are the judges of this Court. Fifth, and finally, all of the California Petitioners and their offices, employees, and counsel are located exclusively within the Ninth Circuit. The other petitioner—ARTBA—also has requested transfer, and the intervenor CARB and its offices, employees, and counsel are located in the Ninth Circuit.

C. This Court Should Transfer This Case to the Ninth Circuit Because No Other State Can Opt Into the CARB Nonroad Engines Rules

In addition to the California Petitioners' arguments, ARTBA also argues that EPA's waiver decision cannot be nationally applicable because the rule applies only in California by its terms, and states other than California cannot adopt California's standards under the terms of Clean Air Act § 209(e)(2)(B).

The California Nonroad Engine Rules apply only in California and are therefore not "nationally applicable" under § 307(b)(1)'s first sentence. *See* 42 U.S.C. § 7607(b)(1). The text of the rules is clear that they are applicable only in California:

This regulation applies to any person, business, or government agency who owns or operates within California any vehicles with a diesel-fueled or alternative diesel fueled off-road compression-ignition engine[.]

13 Cal. Code Regs. § 2449(b)(1) (emphasis added); *Am. Trucking Ass'ns, Inc. v. EPA*, 600 F.3d 624, 628 (D.C. Cir. 2010) (rejecting as "weak" the suggestion that a CARB rule established de facto national standards because "many trucks pass through California"). The only real question is whether EPA successfully invoked § 307(b)(1)'s third sentence to move jurisdiction or venue to this Circuit.

Instead of finding that the California Nonroad Engine Waiver Decision had "nationwide scope or effect" as § 307(b)(1)'s third sentence requires, EPA found that it was a "final action of national applicability." 78 Fed. Reg. at 58,121. It is unclear whether the "national applicability" finding meets the criteria of § 307(b)(1)'s third

sentence. Assuming *arguendo* that it successfully invoked that third sentence, EPA is the party seeking to avail itself of the third sentence's exception to the second sentence and thus bears the burden of proving its entitlement to the exception. *FTC v. Morton Salt Co.*, 334 U.S. 37, 44-45 (1948); *Meacham v. Knolls Atomic Power Lab.*, 554 U.S. 84, 91-92 (2008). In briefing ARTBA's and the California Petitioners' motions to transfer, EPA identified several potential bases for jurisdiction's and venue's properly lying in this Circuit:

- EPA has consistently treated its approvals of CARB vehicle emission regulations as actions of national applicability, and the D.C. Circuit has consistently accepted jurisdiction concerning these approvals.
- Non-California fleet operators allegedly will be required to comply with California's standards when operating a qualifying nonroad diesel vehicle in the State.
- Non-California states may now adopt standards identical to California's without obtaining further EPA approval.

While EPA may not stick to these arguments in its merits briefing here, ARTBA responds to these three arguments in Sections I.C.2-4, *infra*. In addition, Section I.C.1, *infra* also rebuts an additional argument that EPA has not made yet. Because none of these arguments provide a basis for review in the D.C. Circuit, this Court is not the proper venue. None of those arguments survives scrutiny.

**1. The Rule's Impact on Non-California
Manufacturers and Service Providers Does
Not Make the Rule Nationally Applicable**

Until relatively recently, CARB's mobile-source standards applied only to new vehicles and engines, which provided a suitable time to impose emission standards: namely, when the manufacturer designed the vehicle. Colloquially, a California vehicular-emission standard necessarily affected "Detroit," meaning the national manufacturers—based outside California—that would sell new vehicles in California. In-use standards like the Nonroad Engine Rules are a recent phenomenon, vis-à-vis new-vehicle standards, and these in-use standards raise new and different issues.

With respect to new-vehicle standards, EPA historically has made findings to the following effect:

My decision will affect not only persons in California, but also manufacturers outside the State who would have otherwise had to comply with California's requirements in order to produce new motor vehicles for sale in California. In addition, because other states have adopted or may adopt California's GHG program for new motor vehicles—which is allowed if certain criteria under section 177 of the Act are met, this decision will also affect those states and those persons in such states. For these reasons, I determine and find, as in past waiver decisions, that this is a final action of national applicability for purposes of section 307(b)(1).

73 Fed. Reg. 12,156, 12,169 (Mar. 6, 2008) (emphasis added). With in-use retrofit standards, there is no set of nationwide manufacturers that are analogous to the firms that manufacture new vehicles and engines. If the retrofit market constituted a

nationwide market, EPA could nationalize any local rule or order, even for stationary sources (*e.g.*, a determination of best available control technology for a smokestack scrubber).

In light of the real difference between the new in-use standards and the new-vehicle standards typically addressed in prior EPA waivers, EPA's decision to modify its typical § 307(b)(1) finding for the California Nonroad Engine Waiver Decision represents a positive (and correct) administrative decision, not mere bureaucratic oversight. Quite simply, these in-use and retrofit waivers are different from the more typical new-vehicle waivers that previously arose under § 209. When the facts inputted into a decision process change, the results outputted often change as well.

2. The Consistent Practices of EPA and the D.C. Circuit on Prior Waivers Do Not Establish Jurisdiction Over This Waiver

Returning to the arguments that EPA actually pressed so far, the weakest by far is the argument based on EPA's and the D.C. Circuit's consistent practices. As explained in the prior section, most of those prior instances were different, which would easily explain a different result here. In any event, "cases cannot be read as foreclosing an argument that they never dealt with," *Waters v. Churchill*, 511 U.S. at 678, which precludes treating this Court's prior actions accepting jurisdiction or venue that no party questioned as relevant here: "drive-by jurisdictional rulings of

this sort . . . have no precedential effect.” *Steel Co.*, 523 U.S. at 91; *Cooper Indus., Inc. v. Aviall Serv., Inc.*, 543 U.S. 157, 170 (2004) (citing *Webster v. Fall*, 266 U.S. 507, 511 (1925)).

3. Whatever Its Indirect Impact on Non-California Construction Fleets, the California Nonroad Engine Rules Remain Regionally Applicable

EPA’s argument that these California standards apply to fleets based outside California, when those fleets operate in California, has two problems. First, an in-state rule that operates on out-of-state fleets that work in-state nonetheless applies only in California. Second, the construction-fleet market’s including some fleets from outside California, particularly on the border regions (*i.e.*, Arizona, Nevada, and Oregon) if border-state fleets operate across the California line, would in no way render the rules nationwide as opposed to regional. *See New York*, 133 F.3d at 990 (allowing review in the Seventh Circuit of a rule that operated in the Seventh Circuit and also the Sixth-Circuit state of Michigan). These two problems are independently fatal to EPA’s basing review in this Circuit on non-California fleets that operate in California.

The first problem has to do with the locus of the regulated activity, which for the rules plainly operate in California.

The language of the Clean Air Act provision makes clear that this court must analyze whether the regulation itself is nationally applicable, not whether the effects complained of or the petitioner's challenge to that regulation is nationally applicable. *ATK Launch Sys.*, 651 F.3d at 1197 (collecting cases); *Natural Res. Def. Council, Inc. v. Thomas*, 838 F.2d at 1249. A rule that acts locally is simply not a nationally applicable rule.

The second problem involves the disconnect between the rules' regional impact on California (potentially including a few neighboring states) versus a national rule. Given that California's border states all are in the Ninth Circuit, the California standards' impact on non-California fleets operating in California still would be regional. Indeed, taking the *New York* invitation (133 F.3d at 990) to include neighboring circuits (*e.g.*, Utah, Colorado, and New Mexico) within § 307(b)(1)'s "region" would make it even more implausible that the rules could qualify as nationally applicable under § 307(b)(1) based only on the its effects on out-of-state fleets. Unlike interstate trucks or locomotives, off-road construction equipment is unwieldy, heavy, and expensive to transport. Moreover, even for interstate trucking, this Court has already rejected as "weak" the suggestion that California standards become de facto national standards simply by regulating in-California actions of trucks that choose to drive there. *Am. Trucking Ass'n*, 600 F.3d at 628. In any event, neither EPA's record nor its finding supports the existence of faraway construction

fleets that bid on and win construction projects in California and then ship equipment across the country to perform the work. “It is well established that an agency’s action must be upheld, if at all, on the basis articulated by the agency itself.” *Motor Vehicle Mfrs. Ass’n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 50 (1983) (“*MVMA*”); *SEC v. Chenery Corp.*, 332 U.S. 194, 196 (1947). Applied here *MVMA* and *Chenery* provide that this Court cannot uphold EPA’s waiver on a basis not supported in the record.

4. Other States Cannot Adopt the California Standards Under § 209(e)(2)(B)

One potentially plausible basis for an EPA finding of “nationwide scope or effect” would be the ability of other states to adopt a California standard, now that EPA has granted a waiver of federal preemption. Indeed, this is the only basis that the California Nonroad Engine Waiver Decision appears to embrace, however indirectly. Unfortunately for EPA, however, California’s standards and opt-in states’ standards must meet different tests regarding the required lead time: Opt-in states’ standards must both be identical to California’s standards and adopted two years before they take effect. Due to particulars of the California Nonroad Engine Rules’ annually declining fleet average, a state simply cannot adopt a rule identical to California’s with that lead time. Accordingly, notwithstanding that non-California states generally may opt into California standards for which EPA has granted a waiver of preemption,

the moving-target nature of *this* California standard makes it impossible for other states to do so while meeting § 209(e)(2)(B)’s lead time and identity requirements.

In the historically typical situation where CARB adopts model-year standards for new vehicles that apply to each vehicle in the affected class, the difference in lead time requirements would not pose a problem. For example, suppose that CARB adopted a unit-specific standard such as a zero-emission forklift for model-year 2015 and subsequent years, and EPA granted the waiver later this year because EPA found that the lead time sufficed for the California market. Other states could not adopt the new model-year 2015 standard immediately, because that would not allow for § 209(e)(2)(B)(ii)’s required two-year lead time. But CARB’s fork-lift standard for model-year 2017 would be the same as the fork-lift standard for model-year 2015, and other states could opt into the California standard for model-year 2017 and subsequent years. By waiting for two years to pass, the adopting state can achieve identity with California’s standard and satisfy the lead time criteria.

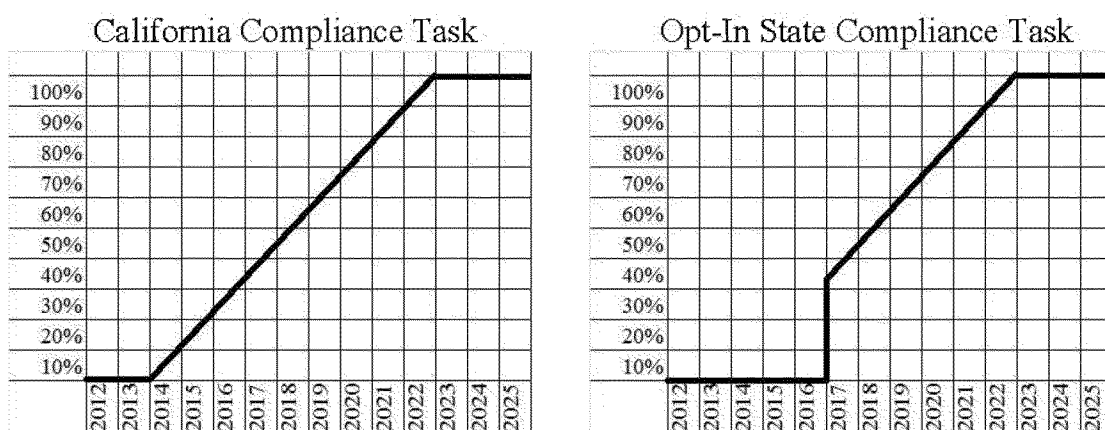
Here, by contrast, the Nonroad Engine Rules already have taken effect, with the declining annual-average, fleet-based emission standards applicable to large fleets in 2014. 13 Cal. Code Regs. § 2449.1(a)(1) (Table 3). JA—. In addition, the Nonroad Engine Rules already ban “Tier 0” and certain “Tier 1” engines. 13 Cal. Code Regs. § 2449(d)(6)(A)-(B). JA—. Insofar as EPA granted the waiver on September 20, 2013, the rules are simply ineligible for adoption by other states because they cannot

meet the requirement that both California and the adopting state “adopt such standards at least 2 years before commencement of the period for which the standards take effect.” 42 U.S.C. § 7543(e)(2)(B)(ii).

Moreover, unlike the hypothetical fork lift standard (which did not decline annually), the Nonroad Engine Rules’ fleetwide averages decline annually, thereby presenting a moving target that will not become “identical” in another state merely because two years have passed. As such, other states cannot adopt the rules later than California and still remain identical—as required by § 209(e)(2)(B)(i)—to the declining annual averages in the California standards. CARB’s Final Statement of Reasons (“FSOR”) repeatedly emphasized the gradual phasing in of the declining fleet average as ameliorating the rule’s infeasibility. *See* CARB, FSOR, at 114 (“the regulation phases in gradually”); JA—; *accord id.* at 159, 180, 226-27, 231, 259. JA—. In the Ninth Circuit, EPA cavalierly equated this adopt-at-midstream facet of the rules’ regulation of fleets of in-use construction equipment with other states’ adoption of California’s Low-Emission Vehicle (“LEV”) Program for on-road vehicles. Initially, the LEV Program set four standards to which manufacturers could certify automobiles—from higher-emitting to lower-emitting, they were TLEVs, LEVs, ULEVs, and ZEVs—and required manufacturers to sell new vehicles that met a declining annual fleet average. *Am. Auto. Mfrs. Ass’n v. Mass. Dep’t of Env’tl. Prot.*, 163 F.3d 74, 78-79 (1st Cir. 1998).

That is completely different from requiring consumers (*i.e.*, not manufacturers) to have their entire in-use fleet (*i.e.*, not annual new-car sales) meet a declining emission standard. Manufacturers simply needed to make the same four types of cars, but sell them in different ratios as the annual fleet average declined (*i.e.*, relatively more ULEVs and ZEVs in later years). In that environment, it would not be particularly challenging for a manufacturer to jump in midstream if a state adopted the LEV Program several years after California did so: the manufacturer already would be making the same cars and would need only to sell the right ratios in the new opt-in state.

By contrast, when opt-in states' in-use fleets need to conform their emissions to the Nonroad Engine Rules, those consumers face an uphill task—indeed, a cliff—that California fleets did not face. The following two charts depict the problem for a hypothetical requirement to electrify ten percent of the fleet each year:



As these two charts demonstrate, the California and non-California standards are not identical: Opt-in states fleets must electrify a third of their fleet in one year.

The same is true for states that propose to opt into the Nonroad Engine Rules at midstream. Fleets in those states would need to accomplish in the first year what the rules allowed California fleets several years to accomplish. That is simply not identical.

As indicated, the California Nonroad Engine Rules are legally ineligible for adoption by other states. As such, to the extent that EPA pinned its finding of national applicability on the ability of other states to opt into the rules, EPA erred as a matter of law, and the Nonroad Engine Rules remain regionally applicable.

**D. If It Can Resolve the Petitions for Review
Without Addressing ARTBA's Arguments,
This Court Should Transfer ARTBA's Petition
To The District Court Under 28 U.S.C. § 1631**

ARTBA's venue-related arguments admittedly implicate merits questions about Clean Air Act preemption vis-à-vis non-California states, but not merits questions about Clean Air Act preemption vis-à-vis the specific EPA waiver before the Court. As such, in the absence of the transfer issue, it is possible that this Court could affirm the EPA waiver, without even addressing the question whether non-California states may opt into these California standards.⁹ Given that EPA preemption rules (which ARTBA does not challenge) call for non-California states to opt into California standards without an action reviewable by EPA, 40 C.F.R. § 1074.110(a)(1), ARTBA

⁹ Of course, if this Court vacates EPA's waiver, there will be no California standards for another state to adopt.

would not have a future opportunity to litigate this issue against EPA under Clean Air Act § 307(b)(1)'s special statutory review.

When a statute provides special statutory review such as § 307(b)(1), that review displaces general review under the Administrative Procedure Act (“APA”). 5 U.S.C. § 703. Of course, that bar to APA review applies only if the statutory review is adequate (*i.e.*, APA review applies “in the absence or inadequacy” of the “special statutory review proceeding relevant to the subject matter”), *id.*, and statutory review plainly would be inadequate here if the Court sidesteps the issues that ARTBA presents. For that reason, if it denies transfer to the Ninth Circuit and reaches the California Petitioners’ merits question, this Court should sever these cases and transfer ARTBA’s petition to the United States District Court for the District of Columbia under 28 U.S.C. § 1631. That procedure would ensure that the question ARTBA raises is not only answered, but answered in this Circuit, with any appellate review in this Court.

II

EPA APPLIED AN INCORRECT STANDARD IN GRANTING THE CARB WAIVER APPLICATION

Should this Court decide not to transfer these consolidated cases to the Ninth Circuit, or transfer ARBTA’s petition to the district court, the EPA Waiver Decision should be vacated and remanded by this Court, for the reasons set forth in this section.

Section 209(e)(2)(A)(ii) of the Clean Air Act provides that EPA may authorize California to adopt standards for nonroad engines and vehicles, but that “no such authorization shall be granted if [EPA] finds that . . . California does not need such California standards to meet compelling and extraordinary conditions.” California must apply for waivers from federal standards on a case-by-case basis. *Motor and Equip. Mfrs. Ass’n, Inc. v. Environmental Protection Agency*, 627 F.2d at 1111; *Engine Mfrs. Ass’n v. United States EPA*, 88 F.3d 1075 (D.C. Cir. 1996). Thus, the statute requires that EPA not grant any California waiver application unless California makes a showing that it has “compelling and extraordinary conditions” necessitating the particular standards for which the waiver is sought.

In connection with the waiver application for California’s Nonroad Engine Rules, the record does not show that California needs those particular emissions standards to meet “compelling and extraordinary conditions” in the state. Accordingly, EPA must deny the waiver application under the plain language of Section 209(e)(2)(A)(ii) of the Clean Air Act.

EPA takes the position that California’s “need” for any particular emissions standard refers not to the need for the standard itself, but to the need for California to have its own motor vehicle air emissions program “as a whole.” *See* 74 Fed. Reg. at 32,761. But the actual language of the statute, as well as its legislative history, requires a different conclusion.

Congress provided in the Clean Air Act that California be given the opportunity to promulgate specific regulatory emissions standards that differed from federal ones, subject to EPA approval. Section 209(e)(2)(A)(ii) mandates that the EPA withhold its approval if California does not need a particular air emission standard to meet “compelling and extraordinary conditions” in the state. “Congress intended the word ‘standards’ in section 209 to mean quantitative levels of emissions.” *MEMA I*, 627 F.2d at 1112-13 (citing Senate Report on Air Quality of 1967, S. Rep. No. 403, 90th Cong., 1st Sess. 32 (1967)). There is no indication in the legislative history that by using the term “standard” Congress really meant “program.” As stated by the Supreme Court with specific reference to Section 209 of the Clean Air Act, “a standard is a standard” and not something else.¹⁰ *Engine Mfrs. Ass’n v. S. Coast Air Quality Mgmt. Dist.*, 541 U.S. at 254. The following discussion of the origin, evolution, and current status of Section 209(e)(2)(A)(ii) is instructive.

A. History of Section 209(e)(2)(A)(ii)

The original Clean Air Act did not contain a preemption provision for motor vehicles. Accordingly, there was no reason to include a waiver provision. *See* Pub. L. No. 89-272, 79 Stat. 992 (Oct. 20, 1965).

¹⁰ The Supreme Court construed the term “standards” as used in Section 209 to “denote . . . numerical emissions levels with which vehicles or engines must comply.” *Engine Mfrs.*, 541 U.S. at 254. *See Adamo Wrecking Co. v. United States*, 434 U.S. at 286 (“standard” means a quantifiable level of emissions to be attained by the use of techniques, controls, and technology).

On November 21, 1967, Congress enacted the “Air Quality Act of 1967,” which amended the Clean Air Act so as to include the following: (1) a provision explicitly preempting state emission standards for new motor vehicles,¹¹ (2) a recognition that California had certain “compelling and extraordinary” conditions that could require the state to promulgate new motor vehicle emissions standards that differed from the federal ones, and (3) a provision authorizing California to request waivers from federal preemption on a case-by-case basis when California could make a showing that it needed a particular emission standard to meet its “compelling and extraordinary conditions.” Congress added these provisions, which applied only to new motor vehicles, in what was then Section 208 of the Clean Air Act. Pub. L. No. 90-148, 81 Stat. 485 (Nov. 21, 1967). JA—. In relevant part, the text of then-Section 208 read:

(a) No State or any political subdivision thereof shall adopt or attempt to enforce any *standard* related to the control of emissions from new motor vehicles or new motor vehicle engines subject to this title. No State shall require certification, inspection, or any other approval relating to the control of emissions from any new motor vehicle or new motor vehicle engine as condition precedent to the initial retail sale, titling (if any), or registration of such motor vehicle, motor engine, or equipment.

¹¹ The 1967 amendments provided for federal preemption of state emissions standards for motor vehicles because motor vehicles “readily move across state boundaries,” and subjecting them to potentially 50 different sets of state emissions requirements raised the spectre of “an anarchic patchwork” of regulation that could threaten both interstate commerce and the automobile manufacturing industry. *Engine Mfrs. Ass’n*, 88 F.3d at 1079. Federal preemption of state motor vehicle emissions standards is the “corner stone” of Title II of the Clean Air Act, which generally governs emissions from motor vehicles. *Motor Vehicles Mfrs. Ass’n of the United States, Inc. v. New York State Dep’t of Env’tl. Conservation*, 17 F.3d 521, 526 (2d Cir. 1994).

(b) The Secretary shall, after notice and opportunity for public hearing, waive application of this section to any State which has adopted standards (other than crankcase emission standards), for the control of emissions from new motor vehicles or new motor vehicle engines *prior to March 30, 1966*,¹² unless he finds that such State does not require *standards more stringent than applicable Federal standards* to meet compelling and extraordinary conditions, or that such State standards and accompanying enforcement procedures are not consistent with section 202(a) of this title.

Id. (Emphasis added). The only state that had new motor vehicle standards in place prior to March 30, 1966, was California.

Thus, from the beginning, the waiver provision applied by its own terms to specific “standards” that California may require based on compelling and extraordinary conditions in the state. Congress authorized EPA’s predecessor to grant waivers from federal preemption but only when EPA found that California required “standards more stringent than applicable Federal standards.” Had Congress wanted to apply the waiver provision to California’s need for a separate motor vehicles emissions program as a whole, it easily could have used the term “program” rather than the term “standards” in the statute. But it did not do that. But Congress made the policy determination that, because of California’s “extraordinary and compelling conditions,” California could have the option of promulgating its own motor vehicle emissions standards on a case-by-case basis. Having made that overarching policy

¹² California is the only state meeting this statutory requirement. *Ford Motor Co. v. EPA*, 606 F.2d 1293, 1296 (D.C. Cir 1979).

decision, in 1967 Congress delegated to EPA's predecessor the authority to determine whether California requires or, more precisely, "does not require" the particular emissions standard for which waiver from federal preemption is sought.

Under the formulation of the 1967 amendments, if EPA makes the "does not require" finding, it may not grant the waiver. In short, Congress recognized that California's "compelling and extraordinary circumstances" are "sufficiently different from the Nation as a whole to justify standards . . . [that] may, *from time to time*, need to be more stringent than national standards." S. Rep. No. 90-403 at 33 (1967) (emphasis added). JA—. The highlighted language shows that Congress intended California to "justify" specific standards "from time to time" in waiver applications submitted to EPA, and that EPA would deny such periodic waiver applications if it found that California "does not require" particular standards that are "more stringent than applicable Federal standards to meet compelling and extraordinary conditions."

In 1970, Section 208 was relocated to Section 209. Clean Air Amendments of 1970, § 8(a), Pub. L. No. 91-604, 84 Stat. 1676 (Dec. 31, 1970). JA—. No substantive changes were made to that section until 1977.

In 1977, Congress amended Section 209(b), the waiver provision, to read:

(b)(1) The Administrator shall, after notice and opportunity for public hearing, waive application of this section to any State which has adopted *standards* (other than crankcase emission standards) for the control of emissions from new motor vehicles or new motor vehicle engines prior to March 30, 1966, if the State determines that the State *standards* will

be, in the aggregate, at least as protective of public health and welfare as applicable Federal standards. No such waiver shall be granted if the Administrator finds that:

(A) the determination of the State is arbitrary and capricious,

(B) such State does not need *such State standards* to meet compelling and extraordinary conditions, or

(C) such State standards and accompanying enforcement procedures are not consistent with section 202(a) of this part.

(2) If *each State standard* is at least as stringent as the comparable applicable Federal standard, *such State standard* shall be deemed to be at least as protective of health and welfare as such Federal standards for purpose of paragraph (1).

(3) In the case of any new motor vehicle or new motor vehicle engine to which State *standards* apply pursuant to a waiver granted under paragraph (1), compliance with *such State standards* shall be treated as compliance with applicable Federal standards for purposes of this title.

Clean Air Act Amendments of 1977, § 207, Pub. L. No. 95-95, 91 Stat. 685 (Aug. 7, 1977) (emphasis added). JA—.

The 1977 Amendments continued to focus on “standards,” but two important additions to the language were made. First, under the old 1967 waiver program, each California standard had to be “more stringent” than the corresponding federal standard. The amendment authorized EPA to approve a particular standard even though that standard may be less stringent than a corresponding federal standard, as long as California made a determination that its standards “in the aggregate” were at

least as protective of public health and welfare as are the federal standards. *MEMA I*, 627 F.2d at 1110. The amending language adding the term “in the aggregate” applied only to the protectiveness determination of Section 209(b)(1).

Second, the 1977 Amendments tighten the provision prohibiting waivers by making clear that “[n]o *such waiver* shall be granted if [EPA] finds that [California] . . . *does not need such standards* to meet compelling and extraordinary conditions.” (Emphasis added.) The old 1967 language provided that EPA “shall” grant waivers unless it found that California did “not require” the standard to meet compelling and extraordinary conditions. The 1977 Amendment expressly prohibited EPA from granting waivers where California did not “need” a particular emissions standard. Significantly, in describing the change made in the waiver provision in 1977, the House Report observes that California may need to have specific quantitative standards that differ from the federal ones. H.R. Rep. No. 294, 95th Cong. 1st Sess. 302 (1977). JA—

Thus, the 1977 Amendments create two specific tests for waiver applications: the “protectiveness test” and the “needs test.” The protectiveness test applies to the issue of whether the California standards “in the aggregate” are at least as protective of human health and the environment as the federal standards are in the aggregate.

The wholly separate needs test focuses on whether California needs the particular standards for which waiver is sought, based upon “compelling and extraordinary conditions” in the state.

By its own terms, Section 209(b) is limited to new motor vehicles and engines used on roads. It was only in 1990 that the Clean Air Act was amended to cover nonroad vehicles and engines, both new and existing. The 1990 Amendments added Subsection 209(e), the relevant portions of which were almost identical to the provisions of Section 209(b) discussed above.¹³

¹³ e) NONROAD ENGINES OR VEHICLES.

(1) PROHIBITION ON CERTAIN STATE STANDARDS. No State or any political subdivision thereof shall adopt or attempt to enforce any standard or other requirement relating to the control of emissions from either of the following new nonroad engines or nonroad vehicles subject to regulation under this Act.

(A) New engines which are used in construction equipment or vehicles or used in farm equipment or vehicles and which are smaller than 175 horsepower.

(B) New locomotives or new engines used in locomotives.

Subsection (b) shall not apply for purposes of this paragraph.

(2) OTHER NONROAD ENGINES OR VEHICLES. (A) In the case of any nonroad vehicles or engines other than those referred to in subparagraph (A) or (B) of paragraph (1), the Administrator shall, after notice and opportunity for public hearing, authorize California to adopt and enforce standards and other requirements relating to the control of emissions from such vehicles or engines if California determines that California standards will be, in the aggregate, at least as protective of public health and welfare as applicable Federal standards. No such authorization shall be granted if the Administrator finds that:

(continued...)

Significantly, the following statement was made on the floor by a sponsor of the 1990 Amendments:

Under the new act, as under current law, States with nonattainment areas may adopt California vehicle emissions performance standards if a waiver has been granted under section 209 *for those standards*.

Extended Remarks of Mr. Symms on Passage of S. 1630, Nov. 2, 1990, 6 Environment and Natural Resources Policy Division, Library of Congress, A Legislative History of the Clean Air Act Amendments of 1990, 10726 (1998) JA—. (Emphasis added).

Thus, the history of the Clean Air Act's California waiver provisions shows that Congress intended the needs test set forth in Sections 209(b)(1)(B) and 209(e)(2)(A)(ii) to apply to whether there was a need for each particular quantitative emissions standard for which a waiver application is made. While the protectiveness test focuses on whether California's standards are as stringent as EPA's standards "in the aggregate," the needs test focuses on whether California's "compelling and

¹³ (...continued)

(I) the determination of California is arbitrary and capricious,

(ii) California does not need such California standards to meet compelling and extraordinary conditions, or

(iii) California standards and accompanying enforcement procedures are not consistent with this section.

Clean Air Act Amendments of 1990, § 222(b), 1990 S. 1630 (Nov. 9, 1990). JA—.

extraordinary conditions” are such that California needs the particular standard for which the waiver application is made.

**B. EPA’s Interpretation of the Term “Standards”
As Used in Section 209(e)(2)(A)(ii) Is Contrary
to the Plain Meaning of the Statutory Text**

The legislative history outlined in Section II. A., *supra*, puts in context the plain meaning of the statutory text.¹⁴ No waiver shall be granted if the Administrator determines that California does not need “such California standards.” Section 209(e)(2)(A)(ii). The term “such California standards” does not refer to the entire California mobile source emissions program, as the term “program” is not used even once in Section 209. Nor has it ever been used in Section 209 or its legislative predecessors.

Even the term “in the aggregate” appears only once in Section 209 and, when it does, it refers only to the protectiveness test added to the Clean Air Act as part of the 1977 Amendments.¹⁵ Additionally, the term “in the aggregate” is itself set off by

¹⁴ “In statutory interpretation, . . . the plain language of a statute [must be given effect] unless ‘literal application of a statute will produce a result demonstrably at odds with the intentions of its drafters.’” *Cent. Valley Chrysler-Jeep, Inc. v. Goldstene*, 563 F. Supp. 2d 1158, 1163 (E.D. Cal. 2008) (quoting *Resolution Trust Corp. v. Bayside Developers*, 43 F.3d 1230, 1236 (9th Cir. 1995)).

¹⁵ Just as Congress inserted the phrase “accompanying enforcement procedures” in some sections and not others, Congress inserted the phrase “in the aggregate” in some places and not others. It is improper to assume that Congress intended the phrase “in the aggregate” to apply whenever the statute speaks of “standards.” *See Motor &* (continued...)

commas, providing further evidence that the term refers solely to the protectiveness test established in that sentence:

[T]he Administrator shall . . . authorize California to adopt and enforce standards and other requirements . . . if California determines that California standards will be, in the aggregate, at least as protective of public health and welfare as applicable Federal standards.

On the other hand, the needs test appears in a subsequent sentence, embedded in a clause that is prefaced by proscriptive language:

No such authorization shall be granted if the Administrator finds that:

(i) . . .

(ii) California does not need such California standards to meet compelling and extraordinary condition.

The “in the aggregate” language appearing in the sentence establishing the protectiveness test is independent of and does not modify the language in the separate sentence establishing the needs test. The outcome of the protectiveness test depends on whether *California* makes a protectiveness finding, while the outcome of the needs test depends on whether *EPA* makes a needs finding. Not only are the findings separate but they must be made by separate entities.

Further, the language in the sentence establishing the protectiveness test *affirmatively mandates* that EPA approve the waiver application if California makes

¹⁵ (...continued)

Equipment Mfrs., 627 F.2d at 1113 (“Congress was certainly capable of adding the phrase ‘accompanying enforcement procedures’ wherever the word ‘standards’ appeared if it desired the statutory findings to apply to both. We see no reason to assume that its failure to do so is attributable to sloppy draftmanship.”)

the requisite protectiveness finding, while the language in the sentence establishing the needs test *expressly prohibits* EPA from granting a waiver application unless EPA makes the requisite needs finding. Thus, the protectiveness test is drafted to broaden the likelihood of granting a waiver, while the needs test is drafted to narrow the likelihood of granting a waiver. This makes perfect sense in the context of the 1977 Amendments, where Congress engaged in a legislative trade-off. Any California standard that was less stringent than its corresponding federal standard could be approved if all the California standards, “in the aggregate,” were at least as stringent as all the federal standards in the aggregate. On the other hand, Congress prohibited EPA from approving any specific standard if California did not have a need for that standard based upon “extraordinary and compelling conditions” in the state. The two different tests were intended to address entirely different issues, and Congress gave greater authority to EPA to approve waivers under the protectiveness test, but lesser authority to approve waivers under the separate and grammatically independent needs test.

Moreover, the sentence establishing the protectiveness test applies to both “standards and other requirements” (emphasis added), while the sentence establishing the needs test refers only to “standards.” The difference makes perfect sense because the sentence establishing the protectiveness test was drafted to address California’s regulatory efforts holistically, and if California’s overall regulatory approach provided

at least the same level of overall protection to human health and welfare as did the federal approach, it mattered not that an individual California standard did not provide exactly the same level of protection as its corresponding federal standard. On the other hand, to ensure that California did not abuse the privilege of veering from a uniform national system governing emissions from motor vehicles, Congress insisted that EPA deny a waiver application if it found under the needs test that California did not need a particular emissions standard to meet “compelling and extraordinary conditions” in the state.

The line drawn by Congress is eminently sensible. Section 209 gives California discretion to propose a portfolio of standards that collectively maximizes overall “protectiveness,” an aim that is entirely compatible with requiring EPA to confirm that each component of that portfolio is actually “needed.” This gives California leeway to enact a “mix” of emission standards that furthers its interests, yet ensures that EPA protects the national interest in the mobility of motor vehicles against California imposing regulations that do not address California’s particular local conditions.

Thus, there is no reasonable basis to assert that the term “in the aggregate” used in the sentence establishing the protectiveness test modifies the plain language of Section 209(e)(2)(A)(ii), which provides under the separate needs test that EPA must deny any waiver application if it finds that California does not need the specific standard for which a waiver is sought to meet “extraordinary and compelling

conditions” in the state. Accordingly, the “in the aggregate” language of Section 209, applies only to the protectiveness test and not to the needs test.

C. EPA’s Interpretation Leads to Absurd Results

EPA’s interpretation that the needs test applies to the entire California motor vehicles emissions program and not to individual emissions standards leads to absurd results. EPA acknowledges that the conditions in California may improve, thereby eliminating the need for the California waiver program. 74 Fed. Reg. at 32,762. JA—. If a time comes when California no longer needs its own program “as a whole,” EPA will be forced to make a finding to that effect and deny waiver applications. But such a finding would put in jeopardy EPA’s past grants of California waiver applications, since those applications would have been granted at a time when EPA had determined that California needed its own program as a whole. Accordingly, by making a “no need” finding in connection with one particular waiver application, all previous waivers would no longer be “needed” under EPA’s “programmatic” interpretation of Section 209(2)(A)(ii).

But in the CAA Congress made the policy judgment that California should be permitted to have its own motor vehicle regulatory program composed of state-specific emissions standards that meet both the needs and the protectiveness tests. By insisting that the needs test applies to the broad issue of whether California requires its own motor vehicle program “as a whole,” EPA is substituting its own judgment for

the one Congress made in the CAA. Thus, if EPA can decide that California needs a separate motor vehicle regulatory program “as a whole,” it can also decide that California does not need such a program, and that therefore, the program is impermissible. This would efface Congress’ policy judgment permitting such a program. EPA cannot veto a Congressional policy decision in that way, regardless of its administrative predilections. *Food and Drug Administration v. Brown & Williamson*, 529 U.S. 120, 125 (2000) (EPA may not substitute its judgment for that of Congress.).

On the other hand, applying the needs test on a standard-by-standard basis focuses EPA’s attention on whether or not California’s “compelling and extraordinary circumstances” lead to a conclusion that there is a need for the particular standard for which California is applying for a waiver. If there is no need for a particular California standard and the waiver application is denied, all previously granted waivers would remain unaffected.

Where one interpretation of a statute leads to absurd results while another interpretation does not, the interpretation leading to absurd results must be abandoned. *Env’tl. Def. Fund, Inc. v. EPA*, 82 F.3d 451, 468-69 (D.C. Cir. 1996); *Resolution Trust Corp.*, 43 F.3d at 1236. Accordingly, because EPA’s interpretation of the needs test leads to absurd results, while the Petitioners’ interpretation does not, EPA’s interpretation must be abandoned.

III

THE EPA WAIVER DECISION SHOULD BE VACATED AND REMANDED

Invalid agency actions are ordinarily vacated and remanded. *Fed. Power Comm'n v. Transcon. Gas Pipe Line Corp.*, 423 U.S. 326, 331 (1976). An agency's failure to comply with statutory requirements usually results in vacating the rule. *Sugar Cane Growers Co-op of Florida v. Veneman*, 289 F.3d 89, 97 (D.C. Cir. 2002) ("Normally, when an agency so clearly violates the APA we would vacate its action."). Here, EPA failed to apply the statutorily mandated standard to make the waiver decision. Accordingly, the Petitioners and the public were not provided with an opportunity to make meaningful comments on whether a waiver should be granted. *See Sprint Corp. v. Fed. Commc'n Comm'n*, 315 F.3d 369 (D.C. Cir. 2003) (noting that the D.C. Circuit has opted for vacatur as a complement to remand with some regularity when notice-and-comment is absent). Had the correct statutory standard been used by EPA to make the waiver decision, meaningful comments on *that* decision could have been made.

This Court has stated that vacatur is not necessarily required for deficiencies but that "the decision whether to vacate depends on [(1)] the 'seriousness of the order's deficiencies'" as well as (2) "the disruptive consequences of an interim change that may itself be changed." *Sugar Cane Growers*, 289 F.3d at 98. Moreover, when

petitioners would be harmed if an EPA rule were remanded but not vacated, this Court has chosen to vacate the rule. *Cement Kiln Recycling Coalition v. EPA*, 255 F.3d 855, 872 (D.C. Cir. 2001).

Here, Petitioners have shown that they will be harmed if the waiver grant is not vacated. *See*, Norman Brown Decl. ¶¶ 5-12, (JA—); Lee Brown Decl. ¶¶ 5-12, (JA—); Klenske Decl. ¶¶ 5-9, (JA—).

In addition, EPA's utter failure to apply the correct decisionmaking standard evidences the seriousness of the deficiency in this case, while potential disruptive consequences of vacatur here are minimal, because EPA would simply be required to revisit the issue of whether to grant the waiver, using the correct standard.

Accordingly, the EPA's California Nonroad Engine Waiver Decision should not only be remanded to EPA, but it should also be vacated.

CONCLUSION

For the foregoing reasons, this Court should send this case to the Ninth Circuit for resolution or, in the alternative, vacate and remand EPA's California Nonroad Engine Waiver Decision, with instructions to EPA to apply the correct standard in making its decision.

DATED: February 13, 2015

Respectfully submitted,

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CERTIFICATE OF COMPLIANCE WITH RULE 32(a)
CERTIFICATE OF COMPLIANCE WITH
TYPE-VOLUME LIMITATION, TYPEFACE
REQUIREMENTS, AND TYPE STYLE REQUIREMENTS.

1. This JOINT OPENING BRIEF OF PETITIONERS DALTON TRUCKING, INC., ET AL., AND AMERICAN ROAD & TRANSPORTATION BUILDERS ASSOCIATION complies with the type-volume limitation of Fed. R. App. P. 32(a)(7)(B) because:

 I It contains 14,464 words excluding the parts of the brief exempted by Fed. R. App. P. 32(a)(7)(b)(iii), or

 It uses a monospaced typeface and contains _____ lines of text, excluding the parts of the brief exempted by Fed. R. App. P. 32(a)(7)(B)(iii).

2. This JOINT OPENING BRIEF OF PETITIONERS DALTON TRUCKING, INC., ET AL., AND AMERICAN ROAD & TRANSPORTATION BUILDERS ASSOCIATION complies with the typeface requirements of Fed. R. App. P. 32(a)(5) and the type style requirements of Fed. R. App. P. 32(a)(6) because:

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DATED: February 13, 2015.

s/THEODORE HADZI-ANTICH

*Attorney for Petitioners
Dalton Trucking, Inc., et al.*

CERTIFICATE OF SERVICE

I hereby certify that on February 13, 2015, I electronically filed the foregoing with the Clerk of the Court for the United States Court of Appeals for the District of Columbia Circuit by using the appellate CM/ECF system.

I certify that all participants in the case are registered CM/ECF users and that service will be accomplished by the appellate CM/ECF system.

s/THEODORE HADZI-ANTICH
THEODORE HADZI-ANTICH

ORAL ARGUMENT NOT YET SCHEDULED

No. 13-1283
(Consolidated with 13-1287)

IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

DALTON TRUCKING, INC., et al.,

Petitioners,

v.

ENVIRONMENTAL PROTECTION AGENCY, et al.

Respondents.

On Petition for Review from the Environmental Protection Agency
EPA-78 Fed. Reg. 58,090

**DECLARATION OF LEE BROWN IN SUPPORT OF
JOINT OPENING BRIEF OF PETITIONERS**

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I, Lee Brown, do hereby declare as follows:

1. The facts set forth in this declaration are based on my personal knowledge and, if called as a witness, I could and would competently testify thereto under oath. As to those matters which reflect a matter of opinion, they reflect my personal opinion and judgment upon the matter.

2. I am the Executive Director of the California Construction Trucking Association.

3. CCTA is a California trade association of small and large companies comprised of over 1,000 members involved in a variety of businesses. Many CCTA members own and operate off-road vehicles powered by diesel engines, also known as compression ignition engines, and CCTA Members rely on those vehicles to conduct their business activities.

4. I am familiar with rules of the California Air Resources Board ("CARB") governing emissions of particulate matter and oxides of nitrogen from in-use off-road (nonroad) diesel fueled equipment with engines greater than 25 horsepower (the "CARB Off-Road Diesel Rules").

5. CARB's Off-Road Diesel Rules require many CCTA members to purchase expensive retrofit equipment in order to comply with the emissions standards.

6. I understand that CARB could not enforce its Off-Road Diesel Rules unless and until they were granted a waiver by the United States Environmental Protection Agency (“EPA”) from federal preemption under the Clean Air Act. EPA granted the waiver on September 20, 2013, and the waiver grant was published at 78 Fed. Reg. 58,090, *et seq.* (Sept. 20, 2013) (the “EPA Waiver Grant”). Accordingly, CCTA members are subject to the CARB Off-Road Diesel Rules now and are now required to purchase the expensive new retrofit equipment mandated by the rules.

7. CCTA members are injured by the CARB Off-Road Diesel Rules because they either incur additional costs to purchase the retrofit equipment for their existing vehicles or are required to take them out of service. For CCTA members that have the cash or credit to purchase the expensive new retrofits, they are injured because they lose operating funds and borrowing ability, resulting in reduction of profitability, severe cash flow problems affecting business operations, and layoffs of employees.

8. Other CCTA members cannot afford to install the expensive retrofits mandated by the rules and have been forced to take out of service a number of nonroad vehicles, in order to get below the current applicability threshold of 5,000 horsepower, resulting in the instant destruction of the value of the equipment, a decrease in their ability to maintain their former workload, and a consequent loss of

profit reflected on their balance sheets. As a result, their ability to borrow money to support even their reduced current operations has been severely damaged. Because of the reduction in horsepower capacity, they have also been forced to refrain from bidding on new jobs that require the additional capacity. This has resulted in layoffs of experienced and valuable employees. Even with the decrease in total horsepower capacity and consequent loss of profits, employees, and business opportunities stemming from the rules, these CCTA members will be subject to the full retrofit requirements in 2019, when the phase-in period terminates and all of their remaining nonroad equipment will be covered by the rules. Because their business prospects have already been severely damaged by rules, they will be even less able to afford the retrofits required in 2019. As a result, they will either go out of business or find ways of cutting costs in other areas by further changing or reducing their business activities. In either event, this will mean further layoffs of employees, a negation or further reduction of profitability, and, in some cases, business shutdowns.

9. These adverse impacts have injured and will continue to injure the members of CCTA, as long as EPA's Waiver Grant remains effective and in place.

10. If EPA's Waiver Grant were to be vacated, the members of CCTA would no longer be injured by the cost increases attributable to the CARB Off-Road Diesel Rules because CARB would no longer be authorized to enforce them. Accordingly,

CCTA members would no longer suffer the economic losses caused by EPA's Waiver Grant.

11. One of the missions of CCTA is to preserve and foster regulatory programs that encourage the use of business equipment for the duration of its useful life without the need for stringent retrofits or replacements.

12. For the reasons stated in Paragraphs 5 - 11, CCTA has been forced to expend its resources on challenging EPA'S Waiver Grant. These are resources that CCTA could have devoted to accomplish its other missions, such as representing the interests of its members in a variety of other contexts, including legislative and regulatory reforms to benefit its members in a variety of ways, such as encouraging, among other things, highway and infrastructure repair for the safety of CCTA members. The channeling of resources away from accomplishing those important goals of CCTA has directly injured CCTA as an organization. That injury will be redressed if EPA's waiver grant is vacated because CCTA will no longer be required to devote any resources to challenging or encouraging amendment or repeal of the rules.

I declare under penalty of perjury that the foregoing is true and correct and that this declaration was executed this 2 day of February, 2015, at Upland, California.



LEE BROWN

ORAL ARGUMENT NOT YET SCHEDULED

No. 13-1283
(Consolidated with 13-1287)

IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

DALTON TRUCKING, INC., et al.,

Petitioners,

v.

ENVIRONMENTAL PROTECTION AGENCY, et al.

Respondents.

On Petition for Review from the Environmental Protection Agency
EPA-78 Fed. Reg. 58,090

**DECLARATION OF NORMAN R. "SKIP" BROWN
IN SUPPORT OF JOINT OPENING BRIEF OF PETITIONERS**

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*Counsel for Petitioners,
Dalton Trucking, Inc., et al.*

I, Norman R. (“Skip”) Brown, do hereby declare as follows:

1. The facts set forth in this declaration are based on my personal knowledge and, if called as a witness, I could and would competently testify thereto under oath. As to those matters which reflect a matter of opinion, they reflect my personal opinion and judgment upon the matter.

2. I am the Owner of Delta Construction Company (“Delta”) and Delta is a member of the California Construction Trucking Association, Inc.

3. Delta owns and operates off-road vehicles powered by diesel engines, also known as compression ignition engines, and Delta relies on those vehicles to conduct its business activities.

4. I am familiar with rules of the California Air Resources Board (“CARB”) governing emissions of particulate matter and oxides of nitrogen from in-use off-road (nonroad) diesel fueled equipment with engines greater than 25 horsepower (the “CARB Off-Road Diesel Rules”).

5. CARB’s Off-Road Diesel Rules require Delta to purchase expensive retrofit equipment in order to comply with the emissions standards. In some cases, retrofit equipment will not work on existing engines, thereby requiring complete replacement of that equipment.

6. I understand that CARB could not enforce its Off-Road Diesel Rules unless and until they were granted a waiver by the United States Environmental

Protection Agency (“EPA”) from federal preemption under the Clean Air Act. EPA granted the waiver on September 20, 2013, and the waiver grant was published at 78 Fed Reg. 58090, et seq. (the “EPA Waiver Grant”). Accordingly, Delta is subject to the CARB Off-Road Diesel Rules now and is now required either to purchase the expensive new retrofit equipment mandated by the rules or to take the equipment out of service.

7. The rules apply now to any company operating a total nonroad vehicle engine horsepower capacity of 5,000 or greater. For companies with less horsepower capacity in their fleets, the rules are being phased-in between now and 2019.

8. If Delta had the capital or credit necessary to purchase the new retrofit equipment for all of its vehicles subject to the rules, it would do so. But Delta does not have the capital or the credit to purchase for all of its vehicles the expensive new equipment mandated by the CARB Off-Road Diesel Rules. At the same time, Delta is prohibited from operating its off-road diesel vehicles without retrofitting them in compliance with the rules.

9. Because the cost of retrofitting is prohibitive, Delta was forced to take out of service a number of nonroad vehicles, in order to get below the current applicability threshold of 5,000 horsepower, resulting in the instant destruction of the value of the equipment, a decrease in Delta’s ability to maintain its former workload, and a consequent loss of profit reflected on its balance sheet. As a result, Delta’s


ability to borrow money to support even the reduced current operations has been severely damaged. Because of the reduction in horsepower capacity, Delta has also been forced to refrain from bidding on new jobs that require the additional capacity. This has resulted in layoffs of experienced and valuable employees.

10. Even with the decrease in total horsepower capacity and consequent loss of profits, employees, and business opportunities stemming from the rules, Delta will be subject to the full retrofit requirements in 2019, when the phase-in period terminates and all of Delta's remaining nonroad equipment will be covered by the rules. Because its business prospects have been severely damaged by rules, it will not be able to afford the retrofits required in 2019. As a result, Delta will either to go out of business or find ways of cutting costs in other areas by further changing or reducing its business activities. In either event, this will likely mean further layoffs of employees, and a negation or further reduction of profitability.

11. These adverse impacts have injured and will continue to injure Delta, as long as EPA's Waiver Grant remains effective and in place.

12. If EPA's Waiver Grant were to be vacated, Delta would no longer be injured by the cost increases attributable to the CARB Off-Road Diesel Rules because CARB would no longer be authorized to enforce them. Accordingly, Delta would no longer suffer the economic losses caused by EPA's Waiver Grant.

I declare under penalty of perjury that the foregoing is true and correct and that this declaration was executed this 2ND day of February, 2015, at SACRAMENTO, California.


NORMAN R. ("SKIP") BROWN

ORAL ARGUMENT NOT YET SCHEDULED

No. 13-1283
(Consolidated with 13-1287)

IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

DALTON TRUCKING, INC., et al.,

Petitioners,

v.

ENVIRONMENTAL PROTECTION AGENCY, et al.

Respondents.

On Petition for Review from the Environmental Protection Agency
EPA-78 Fed. Reg. 58,090

**DECLARATION OF TERRY KLENSKE IN SUPPORT OF
JOINT OPENING BRIEF OF PETITIONERS**

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*Counsel for Petitioners
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I, Terry Klenske, do hereby declare as follows:

1. The facts set forth in this declaration are based on my personal knowledge and, if called as a witness, I could and would competently testify thereto under oath. As to those matters which reflect a matter of opinion, they reflect my personal opinion and judgment upon the matter.

2. I am President of Dalton Trucking, Inc. ("Dalton"). Dalton is a member of the California Construction Trucking Association, Inc.

3. Dalton owns and operates off-road vehicles powered by diesel engines, also known as compression ignition engines, and Dalton relies on those vehicles to conduct its business activities.

4. I am familiar with rules of the California Air Resources Board ("CARB") governing emissions of particulate matter and oxides of nitrogen from in-use off-road (nonroad) diesel fueled equipment with engines greater than 25 horsepower (the "CARB Off-Road Diesel Rules").

5. CARB's Off-Road Diesel Rules require Dalton to purchase expensive retrofit equipment in order to comply with the emissions standards.

6. I understand that CARB could not enforce its Off-Road Diesel Rules unless and until they were granted a waiver by the United States Environmental Protection Agency ("EPA") from federal preemption under the Clean Air Act. EPA granted the waiver on September 20, 2013, and the waiver grant was published at

78 Fed. Reg. 58,090, *et seq.* (Sept. 20, 2013) (the "EPA Waiver Grant"). Accordingly, Dalton is subject to the CARB Off-Road Diesel Rules now and is now required to purchase the expensive new retrofit equipment mandated by the rules.

7. Dalton is injured by the CARB Off-Road Diesel Rules because Dalton will incur additional costs to purchase the retrofit equipment for its existing vehicles or will be required to take them out of service. As a result, Dalton will lose operating funds and borrowing ability, resulting in reduction of profitability, cash flow problems affecting business operations, and possible layoffs of employees, all of which will adversely affect Dalton's business.

8. These adverse impacts have injured and will continue to injure Dalton, as long as EPA's Waiver Grant remains effective and in place.

9. If EPA's Waiver Grant were to be vacated, Dalton would no longer be injured by the cost increases attributable to the CARB Off-Road Diesel Rules because CARB would no longer be authorized to enforce them. Accordingly, Dalton would no longer suffer the economic losses caused by EPA's Waiver Grant.

I declare under penalty of perjury that the foregoing is true and correct and that this declaration was executed this 2 day of February, 2015, at Fontana, California.


TERRY KLENSKE

**IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT**

DALTON TRUCKING, INC., *et. al.*,
Petitioners,

v.

U.S. ENVIRONMENTAL
PROTECTION AGENCY, *et. al.*,
Respondents,

Nos. 13-1283, 13-1287

and

CALIFORNIA AIR RESOURCES
BOARD,
Intervenor-Respondent.

DECLARATION OF LAWRENCE J. JOSEPH

I, Lawrence J. Joseph, hereby declare and state as follows:

1. I am over 18 years of age, and I reside in McLean, Virginia.
2. I am the counsel for petitioner American Road & Transportation Builders Association ("ARTBA") in the above-captioned action.
3. I represented ARTBA in *Engine Mfrs. Ass'n v. Huston*, Civ. No. A-00-CA-316-SS (W.D. Tex.), reported at 190 F.Supp.2d 922 (W.D. Tex. 2001). Concurrent with that litigation and since then, I have represented and worked with ARTBA, as well as its state chapters, in various matters related to: (a) the regulation and proposed regulation of construction-equipment emissions by federal, state, and local government, (b) incentive-based alternatives to such

regulation, and (c) preparation of various attainment demonstrations and State Implementation Plan (“SIP”) revisions under the federal Clean Air Act. In the foregoing capacity, I have become familiar with facets of ARTBA’s membership.

4. ARTBA is a nonprofit trade federation representing the collective interests of the U.S. transportation construction industry in the Congress, the federal agencies, and the courts. Through ARTBA’s state chapters and divisions, ARTBA has more than 5,000 members from all sectors and modes of the transportation construction industry, including without limitation, roads, public transit, airports, ports, and waterways. ARTBA has members in every state, including without limitation transportation construction firms in California, Georgia, Florida, Texas, Wisconsin, Ohio, Illinois, each of the northeastern states, and each of the New England states.

5. Avoiding the application of California Air Resources Board’s In-Use Off-Road Diesel (“ORD”) rule, 13 Cal. Code Regs. §§2449-2449.3, would save many ARTBA members tens of thousands of dollars (or more) on their equipment costs, both in California itself and in any other states that would adopt the California standards. If any non-California states adopt the ORD rules’ controls on construction-equipment emissions, ARTBA’s members (which have engaged in transportation construction and will continue to do so) would be targeted by the new state-adopted ORD rule.

6. Some of the petitioners in No. 13-1283 are ARTBA members, but ARTBA's membership includes California-based construction firms that are regulated by the ORD rule in California and that are not petitioners in No. 13-1283.

7. Working through their state chapters, ARTBA's members advocate before state agencies and legislatures. As defined by its mission statement, ARTBA exists to advance the interest of the transportation construction industry, which includes protecting its members from unauthorized and dubious regulations. On the specific subject of emissions from construction equipment, ARTBA intervened in litigation in Texas, reported at *EMA v. Huston, supra*, to challenge state fleet and in-use controls on construction equipment.

8. ARTBA has active chapters all of the several various states that (a) include areas designated as "nonattainment areas" for ozone and particulate-matter under the federal Clean Air Act, and (b) have opted into prior California mobile-source standards. Although the membership of ARTBA and its state chapters includes entities that do not own or operate construction equipment (e.g., come engineering firms), the most common member types in not only ARTBA itself but also each of its state chapters are construction companies that own construction equipment that would be regulated by the ORD rule if that rule applied in the relevant state.

9. In its independent statement of reasons (*i.e.*, staff report) for its ORD rule (<http://www.arb.ca.gov/regact/2007/ordiesl07/isor.pdf>), CARB considered the rule's cost "significant" and estimated the total cumulative cost of the regulation between 2009 and 2030 at between \$3.0 and \$3.4 billion in 2006 dollars, with the majority of costs occurring between 2010 and 2021; CARB subsequently deferred some of the effective dates of the rule and modified the rule, which might shift or decrease those costs marginally (*i.e.*, not significantly vis-à-vis the total initial estimates). CARB further estimated annual costs between \$229 million and \$257 million per year, averaging \$243 million per year in 2006 dollars. The foregoing costs are costs within California, and comparable costs would be borne by the industry in states other than California, except that as later-adopting states opt in, there presumably would be less and less of a market for used equipment that is noncompliant with the ORD rule (*i.e.*, as more states prohibit or discourage use of Clean Air Act-compliant equipment via the ORD rule, the entities regulated later in time will have less of a national market into which to sell their existing, pre-ORD equipment).

10. States' command-and-control measures on ARTBA members' equipment and operations will have an adverse financial and operational impact on ARTBA's members. In particular, because equipment constitutes a significant portion of ARTBA members' assets, state and local efforts to restrict the use of

equipment through fleet turnover controls, retrofit requirements, in-use controls, and other requirements would severely injure most companies financially and could render many smaller companies unable to stay in business or to compete for projects covered by the state or local restrictions.

11. ARTBA and its members have engaged in negotiations with state and local regulators over construction-equipment controls in several states, including without limitation California and Texas. In addition, ARTBA anticipates that additional states or localities will consider such controls in the future under the federal Clean Air Act, for attainment demonstrations or maintenance plans for nonattainment areas with the federal ozone or particulate-matter standards. Even where states are not inclined to impose controls or to opt into the ORD rule, environmental groups likely would seek to impose such controls as “reasonable further progress” types of SIP revisions, when states fail to attain ambient air quality standards by the applicable deadlines and milestones.

12. In Texas, ARTBA’s district-court victory in *EMA v. Huston, supra*, against state fleet and use standards enabled ARTBA’s Texas chapter to negotiate a more-favorable, incentive-based regime for reducing construction-fleet emissions with Texas.

13. Taking the adoptability of the ORD rule out of consideration as a means of reducing construction-equipment emissions outside California would

enhance the bargaining and legal position of ARTBA's non-California state chapters. A legal ruling against the lawfulness (and thus the creditability) of such emission reductions would benefit ARTBA and its members vis-à-vis state and local regulators who wanted to obtain SIP-creditable emission reductions from the construction sector, thereby substantially increasing the probability of having voluntary, incentive-based controls that would gain sufficient industry participation to meet the state regulators' emission-reduction goals.

I declare under penalty of perjury that the foregoing is true and correct of my personal knowledge, which I believe to be true and if called as a witness I would be competent to testify thereto. Executed on this 13th day of February, 2015.

/s/ Lawrence J. Joseph

Lawrence J. Joseph

ORAL ARGUMENT NOT YET SCHEDULED

Docket Nos. 13-1283 & 13-1287

**UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT**

DALTON TRUCKING, INC.; et al.,

Petitioners,

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, et al.,

Respondents.

AMERICAN ROAD & TRANSPORTATION
BUILDERS ASSOCIATION

v.

UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY

On Petition for Review of Final Action of the United States Environmental
Protection Agency EPA-HQ-OAR-2008-0691

**BRIEF FOR INTERVENOR CALIFORNIA AIR RESOURCES BOARD IN
SUPPORT OF THE ENVIRONMENTAL PROTECTION AGENCY**

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[continued on next page]

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**CERTIFICATE AS TO PARTIES, RULINGS, AND RELATED CASES
(CIRCUIT RULE 28(a)(1))**

Pursuant to Circuit Rules 28(a)(1), Intervenor California Air Resources Board (“ARB”) submits this certificate of parties, rulings, and related cases.

(A) Parties and Amici.

i. Parties, Intervenor, and Amici Who Appeared in the District Court

This case is a petition for review of a final agency action, not an appeal from the ruling of a district court.

ii. Parties to This Petition for Review

Petitioners (No. 13-1283): Dalton Trucking, Inc.; Loggers Association Of Northern California, Inc.; Robinson Enterprises, Inc.; Nuckles Oil Co., Inc., dba Merit Oil Company; California Construction Trucking Association, Inc.; Construction Industry Air Quality Coalition; Delta Construction Company; Southern California Contractors Association, Inc.; Ron Cinquini Farming; and United Contractors (collectively, “California Petitioners”).

Petitioners (No. 13-1287): American Road & Transportation Builders Association (“ARTBA”).

Respondents (Nos. 13-1283 & 13-1287): United States Environmental Protection Agency (“EPA”), and Gina McCarthy in her official capacity as the Administrator of EPA.

Intervenor: ARB.

(B) Rulings Under Review. Petitioners seek review of EPA's grant of a waiver of federal preemption (78 Fed. Reg. 58,090, September 20, 2013, EPA Docket ID.: EPA-HQ-OAR-2008-0691) for ARB's regulations of in-use, off-road diesel equipment, pursuant to section 209(e) of the Clean Air Act, 42 U.S.C. § 7543(e).

(C) Related Cases. California Petitioners petitioned the U.S. Court of Appeals for the Ninth Circuit, challenging the same EPA action, in *Dalton Trucking, Inc. v. EPA*, No. 13-74019 (Nov. 18, 2013). ARB intervened in that case as well. On March 11, 2014, the Ninth Circuit issued an order, *sua sponte*, holding California Petitioners' petition in abeyance pending a determination by this Court regarding whether the instant petitions "were properly filed in [the D.C. Circuit] pursuant to 42 U.S.C. § 7607(b)(1)."

Respectfully submitted,

Dated: May 26, 2015

/s/ Ross H. Hirsch

ROSS H. HIRSCH

Deputy Attorney General

Attorney for Intervenor California

Air Resources Board

GLOSSARY

ARTBA	American Road and Transportation Builders Association
CAA	Clean Air Act, 42 U.S.C. §§ 7401-7671
ARB	California Air Resources Board
EPA	United States Environmental Protection Agency
LEV	Low Emission Vehicle
NAAQS	National Ambient Air Quality Standards
NO _x	Oxides of Nitrogen
PM	Particulate matter
PM _{2.5}	Fine Particulate Matter
SIP	State Implementation Plan

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*Authorities upon which we chiefly rely are marked with asterisks.

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STATEMENT OF JURISDICTION

Pursuant to D.C. Circuit Rule 28(d)(2), Intervenor California Air Resources Board (“ARB”) joins and incorporates without repeating the statement of jurisdiction and related arguments presented by Respondent U.S. Environmental Protection Agency (“EPA”). *See* Respondent’s Brief at p. 1.

STATUTES AND REGULATIONS

Except for the California statutes and regulations provided in a separately bound addendum to this brief, all applicable statutes and regulations are contained in the separate addendum to the Petitioners’ Joint Opening Brief and EPA’s Respondent’s Brief.

STATEMENT OF ISSUES

Pursuant to D.C. Circuit Rule 28(d)(2), ARB joins and incorporates without repeating Respondent EPA’s statement of the issues presented for review. *See* Respondent’s Brief at p. 1.

STATEMENT OF THE CASE

ARB files this brief in support of the Respondent’s Brief filed by EPA and joins and incorporates EPA in opposing the claims raised by the two petitioner groups: (1) Petitioners Dalton Trucking, Inc.; Loggers Association Of Northern California, Inc.; Robinson Enterprises, Inc.; Nuckles Oil Co., Inc., dba Merit Oil Company; California Construction Trucking Association, Inc.; Construction Industry Air Quality Coalition; Delta Construction Company; Southern California

Contractors Association, Inc.; Ron Cinquini Farming; and United Contractors (collectively, “California Petitioners”), and (2) American Road & Transportation Builders Association (“ARTBA”) (collectively, “Petitioners”).

Pursuant to D.C. Circuit Rule 28(d)(2), ARB hereby joins and incorporates EPA’s statement of the case. *See* Respondent’s Brief at pp. 3-18. ARB provides the following supplementary factual background information.

**FACTUAL BACKGROUND REGARDING EPA’S APPROVAL OF
CALIFORNIA’S IN-USE NONROAD DIESEL FUELED FLEETS
REQUIREMENTS**

ARB is California’s air pollution agency for all purposes set forth in federal law, including the responsibility for controlling motor vehicle emissions and to prepare California’s State Implementation Plan (“SIP”) required by the Clean Air Act (“CAA”). *See* CAL. HEALTH & SAFETY CODE §§ 39500, 39602. As such, ARB has the responsibility to adopt rules and regulations to attain the national ambient air quality standards (“NAAQS”) for criteria air pollutants, including particulate matter (“PM”) and nitrogen oxides (“NO_x”). California’s SIP outlines various and regional air quality plans and enforceable emission control limitations for the state to achieve NAAQS attainment. *See* 42 U.S.C. §§ 7410, 7511, 7512.

Because California’s efforts to regulate air emissions predate the enactment of the CAA, Congress provided California with unique authority to adopt and enforce its own standards relating to the control of emissions from new motor vehicles and

motor vehicle engines, as well as certain other in-use engines (i.e., non-new or used engines), recognizing the special environmental circumstances confronting California and the leadership the State has shown as a national laboratory for development of clean air technology. *See Motor and Equip. Mfrs. v. EPA*, 627 F.2d 1095, 1109 (D.C. Cir. 1979), cert. denied, 446 U.S. 952 (1980) (“*MEMA I*”). In this role, California has pioneered regulatory efforts to reduce smog-forming pollutants and to address climate change.

California Air Basins, particularly South Coast and San Joaquin, still need reductions of air pollutants, particularly PM and NO_x, in order to achieve federal mandates. Of the significant contributors to California’s air quality problems are nonroad in-use engines, which include vehicle fleets and engines such as currently in-use tractors, lawnmowers, bulldozers, cranes, locomotives, and marine craft. *See* 40 C.F.R. §§ 89.1, 1068.30. As of 2010, nonroad engines were estimated to be the fourth largest source of diesel PM in California (7 percent of total) and the sixth largest source of NO_x from all sources (4 percent of total). *See* California State Nonroad Engine Pollution Control Standards; Off-Road Compression Ignition Engines—In-Use Fleets, 78 Fed. Reg. 58,098-58,099 (Sept. 20, 2013) citing EPA–HQ–OAR–2008–0691–0002 Attachment A, at 13.

As part of its strategy to achieve the NAAQS, ARB has adopted regulations for, among other sources, in-use nonroad diesel-fueled fleets that establish

emission standards and operational control measures for such vehicles that are operated in California. *See* CAL. CODE REGS. tit. 13, §§ 2449-2449.2 (adopted April 4, 2008, effective June 16, 2008 and last amended on October 28, 2011, effective December 14, 2011).

Prior to the enactment of the 1990 Amendments to the CAA, pollution from nonroad engines was regulated solely by the states. After enactment of the 1990 CAA Amendments, EPA began to regulate *new* nonroad vehicles and engines while the states became generally prohibited from doing so. *See* 42 U.S.C. § 7547. As part of this regulatory framework, all states, including California, are prohibited from adopting or enforcing emissions standards from *new* nonroad engines less than 175 horsepower used in farm and construction vehicles, equipment and locomotives. *See id.* § 7543(e)(1).

In that same statute, Congress also expressly reserved to California the right to continue to control pollution from *in-use* nonroad engines if California obtains authorization from EPA. *See id.* § 7543(e)(2). Under this provision, also known as CAA Section 209(e)(2), the EPA Administrator must grant California authorization to implement and enforce its own regulations if California satisfies certain statutory preconditions.¹ *See id.* In providing California with special

¹ Other states have the option of adopting California's regulatory program, once approved by EPA. *See id.* § 7543(e)(2)(B).

authority to adopt its own regulations, Congress recognized the State's unique air quality problems and its history of achieving innovative solutions to those problems. *See MEMA I*, 627 F.2d at 1109.

ARB's regulations at issue here (for which EPA granted ARB's request for authorization that is now being challenged by Petitioners) are designed to reduce PM and NOx emissions from such in-use nonroad diesel fleet engines with a maximum power of 25 horsepower or greater. *See* 78 Fed. Reg. at 58,090. Such fleets are required to meet fleet average NOx and PM emissions standards or, alternatively, to comply with best available control technology ("BACT") requirements for the vehicles in those fleets. *See id.* ARB initially promulgated nonroad fleet requirements in 2007, but following hearings in 2008, 2009 and 2010, ARB significantly amended the regulations to, among other things, modify compliance dates and in-use performance requirements. *See id.* at 58,091. On March 1, 2012, after the formal adoption of the current amended version of the nonroad fleet requirements, ARB requested that EPA grant California the authorization under the authority of the CAA to enact and enforce them. *See id.* at 58,093. Following a public comment period, EPA granted ARB's request for authorization on September 20, 2013. *See id.* at 58,090.

ARB has a statutory mandate to reduce air pollution within California. If the Petitioners are successful in invalidating EPA's waiver, there will be a direct

impact on California's ability to: (1) achieve the emissions reductions required by the CAA and those necessary to come into attainment with the NAAQS as required by the CAA; and (2) protect the health and welfare of its citizens.

STANDARD OF REVIEW

Pursuant to D.C. Circuit Rule 28(d)(2), ARB joins and incorporates without repeating Respondent EPA's statement regarding the standard of review, *see* Respondent's Brief at pp. 18-19, and adds the following information to further amplify EPA's final paragraph as to statutory interpretation.

EPA's construction of the CAA waiver provision is governed by the two-step framework of *Chevron U.S.A., Inc. v. Natural Resources Def. Council, Inc.*, 467 U.S. 837, 842-43 (1984) ("*Chevron*"). First, "if the intent of Congress is clear, that is the end of the matter; for the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress." *Chevron*, 467 U.S. at 842-43. In determining the intent of Congress, the Court employs traditional statutory construction tools, looking to the statute's language, design and, where appropriate, legislative history. *See Public Citizen v. Nuclear Regulatory Comm'n*, 901 F.2d 147, 152 (D.C. Cir. 1990).

Second, "if the statute is silent or ambiguous with respect to the specific issue, the question for the court is whether the agency's answer is based on a permissible construction of the statute." *Id.* at 843; *see, e.g., Bluewater Network v.*

EPA, 372 F.3d 404, 411 (D.C. Cir. 2004). The agency’s view “governs if it is a reasonable interpretation of the statute—not necessarily the only possible interpretation, nor even the interpretation deemed most reasonable by the courts.” *Entergy Corp. v. Riverkeeper, Inc.*, 556 U.S. 208, 218 (2009).

SUMMARY OF ARGUMENT

ARB joins and incorporates the legal arguments presented in EPA’s brief. Cognizant of Circuit Rule 28(d)(2), ARB will not repeat EPA’s arguments, all of which ARB supports, but because of the importance of California’s in-use, nonroad diesel rules to ARB’s efforts to address CAA and NAAQS compliance, ARB offers this intervenor brief to supplement EPA’s brief on three specific points: (1) EPA’s interpretation of the CAA’s provisions concerning authorizations for California’s emissions program is sound; (2) EPA’s authorization determination must be upheld to ensure that California can continue to protect the health of its citizens by addressing the State’s unique and problematic air quality issues; and (3) California’s policy judgments concerning its air quality standards must continue to be afforded the deference Congress required in passing the CAA, and that has also been historically recognized by EPA and this Court.

The CAA generally preempts states from regulating air emissions from new nonroad vehicles and engines. California, alone among the states, may however adopt emission standards for *in-use* nonroad vehicles and engines with EPA’s

approval. 42 U.S.C. § 7543(e)(2)(A). Under Section 209(e)(2)(A)(ii), 42 U.S.C. § 7543(e)(2)(A)(ii), using virtually identical language as 209(b)(1)(B), 42 U.S.C. § 7543(b)(1)(B), EPA must grant California's request for authorization to set its own emission standards for in-use nonroad diesel vehicles and engines unless, among other things, EPA finds that California does not "need" its standards "to meet compelling and extraordinary conditions." 42 U.S.C. § 7543(e)(2)(A)(ii).

On September 20, 2013, EPA published its Notice of Decision granting ARB's March 1, 2012 request for authorization pursuant to the CAA allowing California to regulate certain diesel emissions from in-use nonroad engines pursuant to Section 209(e)(2)(A). *See* 78 Fed. Reg. 58,090 (Sept. 20, 2013). EPA thoroughly analyzed the "need" element, the text of section 209, the legislative history, as well as the California Petitioners' comments on the element and their "alternative interpretation" (that EPA is required to review, on a case by case basis, whether the specific standard is needed to meet compelling and extraordinary conditions). *Id.* at 58,098-58,111. EPA concluded that the authorization opponents had failed to meet their burden of demonstrating that California does not need its separate nonroad diesel engines emissions program to meet compelling and extraordinary conditions, and therefore EPA "cannot deny the authorization request under section 209(e)(2)(A)(ii)." *Id.* at 58,111. Petitioners' sole substantive challenge to EPA's decision is what they previously raised in their comment, and

that was rejected by EPA: that EPA misinterpreted section 209(e)(2)(A)(ii) to mean California's need for its nonroad emissions program as a whole, as opposed to California's need for the particular standards for which it seeks authorization.

EPA's decision must be upheld unless it is "arbitrary, capricious . . . or otherwise not in accordance with law," or if it fails to meet statutory, procedural, or constitutional requirements. 5 U.S.C. § 706(2); *American Trucking Ass'ns, Inc., v. EPA*, 600 F.3d 624, 627 (D.C. Cir. 2010) ("*ATA*"). In reviewing challenges to EPA waiver or authorization decisions² under 42 U.S.C. § 7543, California's regulations are "presumed to satisfy the waiver requirements" and "the burden of proof lies with the parties favoring denial of the waiver," and the Court must "presume that the Administrator acted lawfully and so conclude unless [the Court's] thorough inspection of the record yields no discernible rational basis for his action." *MEMA I*, 627 F.2d at 1105, 1121.

And because Petitioners' argument primarily concerns the statutory interpretation of section 209(e)(2)(A), the two-step analysis in *Chevron* applies. Unless Petitioners under *Chevron* Step One can show that Congress

² According to the CAA, EPA grants California a "waiver" (i.e., of federal preemption) for onroad regulations and an "authorization" for nonroad regulations. The standards California must meet to receive a waiver or an authorization are the same under the CAA. 42 U.S.C. § 7543(b) & (e)(2)(A). Although this particular case concerns EPA's authorization of California's nonroad regulations, analogous waiver case law applies equally to authorizations.

unambiguously spoke to and resolved the specific statutory issue in their favor, EPA need only show under *Chevron* Step Two that its interpretation is a reasonable one. This is a deferential standard, and EPA more than surpassed it—EPA’s interpretation is not just plausible, but the only one that accords with the Act’s language, history, purpose and administrative practice.

The three issues ARB’s Intervenor’s Brief addresses are as follows. First, EPA’s approval of California’s in-use nonroad regulations pursuant to Section 209(e)(2)(A) that Petitioners now challenge was clearly consistent with its authority under the CAA. While Petitioners claim that EPA should have applied a different “need” test, EPA’s interpretation is reasonable and consistent with the Act’s plain and unambiguous text and clearly satisfies the standards articulated in *Chevron*. Petitioners’ argument would compel EPA or ultimately this Court to oversee and reevaluate each of California’s specific emission standards and policy judgments behind each specific emission standard. This contradicts the Act’s plain text and explicit Congressional intent to provide California broad discretion to pioneer innovations that will lead the nation in air quality regulation.

Second, California experiences some of the worst air quality in the nation. California’s large numbers and high concentrations of motor vehicles and engines create compelling and extraordinary air quality issues that ARB is mandated to address. California’s nonroad emission program is essential to meeting the

NAAQS because emissions from nonroad sources represent a major portion of mobile source emissions in the state. Setting aside EPA's authorization of ARB's nonroad diesel emission regulations as Petitioners seek to do would severely undermine and make extremely difficult California's ability to obtain the emission reductions necessary to achieve the federally mandated NAAQS.

Third, the Act's text and legislative history, EPA's longstanding decisional history, and this Court's rulings all uniformly recognize that California must be afforded the "broadest possible discretion" to determine its own emission standards. EPA's interpretation promotes this important interest.

For these reasons, the petition should be denied.

ARGUMENT

As stated above, ARB joins and incorporates in EPA's legal arguments regarding the standard of review and the five legal issues raised in the Petitioners' brief. ARB also presents the following additional information and argument regarding the fourth and fifth items identified in EPA's statement of issues presented for review. *See* EPA Brief at p. 2.

I. THE CLEAN AIR ACT'S TEXT AND EPA'S LONGSTANDING ADMINISTRATIVE PRACTICE ESTABLISH THE REASONABLENESS OF EPA'S INTERPRETATION THAT SECTION 209(e)(2)(A)(ii) REFERS TO CALIFORNIA'S NEED FOR ITS ENTIRE NONROAD EMISSIONS PROGRAM AS A WHOLE

The central issue Petitioners raise is whether section 209(e)(2)(A)(ii) requires EPA to determine California's need for its entire nonroad emissions program as a whole before granting a waiver/authorization, as EPA and ARB contend, or, as Petitioners contend, whether EPA is required to determine California's need for each particular standard for which it seeks a waiver/authorization. EPA's interpretation should be upheld because it comports with the plain meaning of section 209(e)(2)(A)(ii) and EPA's longstanding interpretation.

A. The Statutory Text Confirms EPA's Interpretation

The plain language of Section 209(e)(2)(A)(ii) requires that EPA evaluate California's need for "such California standards." That phrase directly refers back to "California standards . . . in the aggregate" in the immediately preceding sentence in section 209(e)(2)(A). Thus, the plain meaning of section 209(e)(2)(A) is that EPA is to consider California's need for California's nonroad standards in the aggregate, not the need for the particular standards for which an authorization

is currently being sought. Even if EPA's interpretation were not compelled by the statute's language, it is a logical and permissible reading of the statutory text.

To obtain an authorization for the nonroad regulations at issue herein, California first must determine under section 209(e)(2)(A) that "California standards will be, in the aggregate, at least as protective of public health and welfare as applicable Federal standards." 42 U.S.C. § 7543(e)(2)(A). Once California has made this "protectiveness" determination, EPA "shall" grant the authorization unless it makes one of three findings. 42 U.S.C. § 7543(e)(2)(A)(i)-(iii). Petitioners only challenge EPA's decision not to make a finding that "California does not need such California standards to meet compelling and extraordinary conditions." *See* 42 U.S.C. § 7453(e)(2)(A)(ii).

The Act's text shows that section 209(e)(2)(A)(ii) requires EPA to consider California's need for its entire nonroad emissions program as a whole and not the particular standards for which the authorization is sought. As stated, the term "such California standards" in section 209(e)(2)(A)(ii) refers to those "California standards . . . in the aggregate" mentioned in the immediately preceding sentence. The term "California standards . . . in the aggregate," in turn, refers to California's entire emissions standards program because California must determine whether its standards "in the

aggregate”—that is, its entire program—are as protective as Federal standards. *See MEMA I*, 627 F.2d at 1110 & n.32.

Linking the term “such California standards” in section 209(e)(2)(A)(i) to “California standards . . . in the aggregate” is routine statutory construction. The word “such” typically refers back to the phrase’s immediately preceding use. *Middle S. Energy, Inc. v. FERC*, 747 F.2d 763, 769, n.4 (D.C. Cir. 1984), *citing Florida Power & Light Co. v. FERC*, 617 F.2d 809, 819, n. 2 (D.C. Cir. 1980) (“[a]s a matter of commonsensical construction, ‘any such new schedule’ in 205(e) refers to the immediately preceding ‘new schedules’ in § 205(d) rather than to the more general and more distant ‘schedules’ in § 205(c)”; *see United States v. Bowen*, 100 U.S. 508, 512-13 (1879) (construing “such pensioners” to mean those pensioners referred to in the “immediately preceding sentence in the same section” and insisting that “no sound canon of construction will authorize us to disregard” the term “such”); *but cf., North Broward Hosp. Dist. v. Shalala*, 172 F.3d 90 (D.C. Cir. 1999) (finding use of “such” ambiguous and deferring to agency’s statutory interpretation).

EPA’s interpretation of the statutory text also conforms to the Act’s structure. As the Administrator pointed out as to the identically worded section 209(b)(1)(B), a determination that this identically worded section only

applies to individual standards would conflict with the 1977 amendment allowing California to have individual standards less protective than a corresponding federal standard: “Congress could not have given this flexibility to California” and at the same time required that California demonstrate that it “needed” a particular standard. 49 Fed. Reg. 18,887, 18,890 n.24 (May 3, 1984).

B. EPA’s Longstanding Administrative Practice Interpreting the Analogous Section 209(b)(1)(B) Demonstrates the Reasonableness of EPA’s Interpretation of Section 209(e)(2)(A)(ii)

In determining whether to defer to an agency’s interpretation under *Chevron* Step Two, courts accord great weight to a longstanding statutory interpretation by an agency charged with its administration. *See, e.g., Barnhart v. Walton*, 535 U.S. 212, 221-22 (2002); *Secretary of Labor v. Excel Mining, LLC*, 334 F.3d 1, 6-8 (D.C. Cir. 2003) (according “particular deference” to 25-year-old agency interpretation). EPA’s administrative practice demonstrates the reasonableness of its current interpretation.

Since the Act’s inception, EPA has always evaluated whether California continued to have “compelling and extraordinary conditions” that warranted California having a separate program. For example, in 1979 EPA said:

[M]y review of California’s action under section 209(b)(1)(B) is

not based upon whether California has demonstrated a need for the particular regulations, but upon whether California needs standards to meet compelling and extraordinary conditions. 44 Fed. Reg. 38,660, 38,661 (July 2, 1979).

EPA provided a very thorough discussion of the analogous section 209(b)(1)(B) in a 1984 waiver decision. There EPA examined the Act's text, purpose and legislative history, and concluded that its section 209(b)(1)(B) analysis was confined to whether California needed its own program, not a particular standard. 49 Fed. Reg. 18,887. EPA has reaffirmed its "program-as-a-whole" interpretation in numerous waiver decisions since. *See, e.g.*, 51 Fed. Reg. 31,173 (Sept. 2, 1986); 52 Fed. Reg. 20,777 (June 3, 1987); 53 Fed. Reg. 7021 (Mar. 4, 1988); 53 Fed. Reg. 7022 (Mar. 4, 1988); 54 Fed. Reg. 6447 (Feb. 10, 1989); 55 Fed. Reg. 43,028 (Oct. 25, 1990); 57 Fed. Reg. 24,788 (June 6, 1992); 58 Fed. Reg. 4166 (Jan. 13, 1993); 59 Fed. Reg. 48,625 (Sept. 13, 1994); 69 Fed. Reg. 60,995 (Oct. 14, 2004); 70 Fed. Reg. 50322, 50323 (August 26, 2005); 71 Fed. Reg. 78,190, 78,192 (Dec. 28, 2006).

EPA's long administrative practice establishes the reasonableness of its interpretation that the analogous section 209(b)(1)(B) refers to California's need for a separate emissions program as a whole. That this Court characterized section 209(b)(1)(B) in the same way as EPA makes this conclusion even more emphatic. *See Motor & Equip. Mfrs. Ass'n v.*

Nichols, 142 F.3d 449, 453 (D.C. Cir. 1998) (referring to section 209(b)(1)(B) as requiring a showing that “California does not need *separate* state standards to meet ‘compelling and extraordinary conditions’” (emphasis added) (dicta)).

II. EPA’S DECISION TO AUTHORIZE CALIFORNIA’S NONROAD EMISSIONS PROGRAM RECOGNIZES CALIFORNIA’S UNIQUE POSITION AND SIGNIFICANT AIR QUALITY ISSUES

From its inception, the CAA recognized California’s importance to a successful national motor vehicle emission control program, mainly because California had already established itself as an innovator in reducing automobile pollution, and in part because Congress expected California to continue in that pioneering role. The Act gave California’s program a unique role alongside the federal emissions standards program creating the regulatory system that continues today. A decade later, in the 1977 Clean Air Act amendments, Congress expanded California’s discretion to develop its program to address the compelling air issues that California continues to address. Congress also permitted other States to adopt California’s standards.

California’s nonroad emission program is essential to meeting the NAAQS because emissions from nonroad sources represent a major portion of mobile source emissions in the state. In 2010, it was estimated that “the off-road vehicles subject to the off-road regulations were the fourth largest source of diesel PM in

California (7 percent of total) and the sixth largest source of NO_x from all sources (4 percent of total).” 78 Fed. Reg. at 58,099 citing EPA–HQ–OAR–2008–0691–0002 Attachment A, at 13. Two air basins in California—the South Coast Air Basin and the San Joaquin Valley Air Basin—are in nonattainment for both PM_{2.5} and the 8-hour ozone standard. Overall, to meet the federal PM_{2.5} standard in the South Coast and San Joaquin Valley Air Basins, NO_x emissions must be reduced by approximately 50 percent. Even greater reductions of NO_x, on the order of 75 to 88 percent, will be needed to achieve the federal 8-hour ozone standard in the by 2023. California’s nonroad emissions program enables California to achieve these important and necessary reductions. Setting aside EPA’s authorization of ARB’s nonroad diesel emission regulations as Petitioners seek to do would severely undermine and make extremely difficult California’s ability to obtain the emission reductions necessary to achieve the federally mandated NAAQS.

The federal-California partnership that Congress drafted into the CAA has served the national interest for more than four decades by allowing California to develop its own vehicle emissions program subject to a waiver/authorization process that defers to California’s judgment about its program’s content in light of California’s unique and significant air issues. This federal-California partnership has achieved striking results in addressing air quality issues and protecting public health from pollution—and it should continue to be upheld.

III. THIS COURT SHOULD DEFER TO CALIFORNIA'S POLICY JUDGMENTS IN SETTING CALIFORNIA'S STANDARDS

Congress's decision to give broad deference to California's judgment about its standards is embodied in the CAA's text and legislative history, recognized in EPA's administrative practice, and confirmed by this Court's decisions. Petitioners' attempt to set aside this important aspect of the CAA should be rejected because it contradicts the explicit Congressional intent to provide California broad discretion to make air quality rules and pioneer innovations that will lead the nation's fight against air pollution.

A. The Statutory Language Confirms That EPA and the Court Should Defer to California in Setting Its Air Quality Regulations

Under section 209(e)(2)(A), just as in the analogous language found in section 209(b), once California determines that its standards in the aggregate are as protective of public health and welfare as applicable federal standards, the EPA Administrator "shall" grant California's request for authorization (or, in the case of section 209(b), similarly waive the application of the preceding preemption clause) unless the Administrator makes one of three findings described in section 209(e)(2)(A). 42 U.S.C. §§ 7543(b), 7543(e)(2)(A). Section 209(e)(2)(A) thus assumes that EPA shall grant the authorization request unless the Administrator makes contrary findings (just as is the case regarding a waiver under section 209(b)). The Act's history "makes clear that

the burden of proof lies with the parties favoring denial of the waiver.”

MEMA I, 627 F.2d at 1122.

Congress reemphasized its deference to California’s policy judgment when it expanded California’s authority in 1977:

The Committee amendment is intended to ratify and strengthen the California waiver provision and to affirm the underlying intent of that provision, i.e. to afford California the broadest possible discretion in selecting the best means to protect the health of its citizens and the public welfare The Administrator, thus, is not to overturn California’s judgment lightly. Nor is he to substitute his judgment for that of the State.

H.Rep. No. 95-294 at 301-302, reprinted in 1977 U.S.C.C.A.N. 1077, 1380-81; *see* 40 Fed. Reg. 23,102, 23,103 (May 28, 1975) (describing legislative history). Thus, the statutory text plainly confirms deference to California’s air quality policy judgments.

B. Adhering to the CAA, EPA Consistently Defers to California’s Rulemaking

In upholding the deference Congress drafted into the CAA, EPA has “consistently adhered” to this deferential approach to California’s discretion when reviewing California’s waiver requests. *MEMA I*, 627 F.2d at 1122. “Congress has made it abundantly clear that [challengers] would face a heavy burden in attempting to show ‘compelling and extraordinary conditions’ no longer exist.” 49 Fed. Reg. at 18,890; *see, e.g.*, 59 Fed. Reg. 46,978 (Sept. 13, 1994); 58 Fed. Reg. 4166 (Jan. 13, 1993); 51 Fed. Reg. 2430 (Jan. 16, 1986). There are many

examples of EPA's deference:

- “Arguments concerning the wisdom” of California’s motorcycle standards, “all fall within the broad area of public policy. The EPA practice of leaving the decision . . . to California’s judgment is entirely consistent with the Congressional intent behind the California waiver provision.” 41 Fed. Reg. 44,209, 44,210 (Oct. 7, 1976).
- Argument that standards would not result in significant improvements in California air quality all fall within the EPA practice of leaving the decision on controversial matters to California’s judgment. 42 Fed. Reg. 31,639, 31,641 (June 22, 1977).
- Contentions that the number of vehicles subject to a California standard was too insignificant to mitigate any compelling and extraordinary conditions in California, and that regulations would not reduce air pollution all fall within the EPA practice of leaving matters of public policy to California’s judgment. 42 Fed. Reg. 25,755, 25,757 (May 18, 1977).
- Automakers’ contentions that California did not need particular standards and that the standards might not have a net beneficial health effect fall within EPA practice of leaving controversial public policy decisions to California’s judgment. 43 Fed. Reg. 15,490, 15,493 (April 13, 1978).
- Manufacturers questioned the need for the standards and the wisdom of California’s emission control strategy. The arguments, however, were not grounds for denying California a waiver. 43 Fed. Reg. 25,729, 25,736 (June 14, 1978).
- Objections pertaining to the wisdom of California’s judgment on various public policy matters are beyond the scope of review. 43 Fed. Reg. 32,182, 32,184 (July 25, 1978).
- Action regarding standards and their effect on and improvements in air quality and falls into public policy area left to California’s judgment. 44 Fed. Reg. 7807, 7808 (Feb. 7, 1979).
- Arguments that California did not need the regulations and had not

demonstrated an associated air quality benefit are outside section 209(b)(1)(B). 44 Fed. Reg. 38,660, 38,661 (July 2, 1979).

- Whether a proposed California requirement is likely to result in only marginal improvement in air quality not commensurate with its costs is not legally pertinent to the decision under section 209. It is not necessary for the ARB to quantify the exact emissions benefits its new standards will create when it is clear that its standards are significantly more stringent than the corresponding federal standards. 49 Fed. Reg. 18,887 (May 3, 1984); see 57 Fed. Reg. 38,502, 38,503 (Aug. 25, 1992); 59 Fed. Reg. 46,979.
- Pointing out that California correctly noted that the extent to which a given set of California standards will reduce air pollution in California is not pertinent to the need question. 58 Fed. Reg. 4166 (Jan. 13, 1993).
- Because California was intended by Congress to have broad discretion in choosing its air pollution control strategies, the extent of benefits that will be produced by the California LEV program is not pertinent to EPA's decision. 63 Fed. Reg. 6173, 6174 (Feb. 6, 1998).

EPA's historic interpretation and refusal to undermine California's individual standards is consistent with, and compelled by, Congress's decision to provide California the broadest possible discretion to develop its own emissions program. Petitioners' view would compel EPA to second-guess the effectiveness of California's proposed standards to determine whether California truly "needed" each and every particular standard, regardless of the pollution source and even for small program changes. But the CAA does not call for such intrusive review. Instead, the CAA clearly requires EPA to defer to California's policy judgments in creating new standards that lead the state's, and, frequently, the nation's fight

against motor vehicle/engine pollution. And that is precisely what EPA did in analyzing and approving California's request for authorization here.

C. California's Broad Discretion Is Also Recognized In This Court's Prior Decisions

This Court has also recognized California's broad discretion to create its own emissions program. This Court has ruled that California standards "are presumed to satisfy the waiver requirement and that the burden of proving otherwise is on whoever attacks them." *MEMA I*, 627 F.2d at 1121. Further, this Court has affirmed that "deferential standards" require only a " cursory review" for deciding whether to grant California a waiver. *Ford Motor Co. v. EPA*, 606 F.2d 1293, 1302 (D.C. Cir. 1979). And more recently, this Court rejected an attack to California's "need" for a nonroad engine standard under section 209(e)(2)(A)(ii) and again deferred to EPA's assessment that the standard was within California's policy judgment. *See ATA*, 600 F.3d at 628 (denying challenge to EPA decision granting waiver under section 209 (e)(2)(A)(ii)).

Moreover, ARB has reaffirmed that in-use, nonroad diesel vehicles continue to be "a significant source of air pollution emissions in California," that contribute to ongoing violations of the NAAQS and to continuing localized health risk.

Decision docket 0691-0283, at 1 (JA xx) (CARB Resolution 10-47), Decision

docket 0691-0270, at 18 (JA xx).³ Because of these undeniable and significant air pollution challenges that continue to exist in California, ARB has therefore found that without reductions from in-use nonroad diesel vehicles, neither San Joaquin Valley nor the South Coast Air basins will be able to attain applicable NAAQS standards. Decision docket 0691-0002, attachment A at 7 (JA xx). Congress's and EPA's historic deference to California's policy judgments about California's standards, and its need for such standards, must be upheld, and Petitioners have failed to satisfy their burden to show that EPA's interpretation or grant of authorization for California's in-use nonroad diesel emission regulations was improper.

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³ California still has that unique blend of geographical and climatic conditions that have been noted time and time again that, when combined with large numbers and high concentrations of automobiles and other motor vehicles and engines, create serious air pollution problems. *See, e.g.*, 49 Fed. Reg. at 18,890, 78 Fed. Reg. at 50098. In 2006, EPA confirmed that these compelling and extraordinary conditions existed, 71 Fed. Reg. 78,190, 78,192 (December 28, 2006), and nothing has changed since then to diminish California's need for its separate program. *See ATA*, 600 F.3d at 628 (upholding EPA waiver decision under waiver criterion nearly identical to section 209(b)(1)(B) because California continues to suffer from "some of the worst air quality in the nation"). California, and the South Coast and San Joaquin Air basins in particular, experiences some of the worst air quality in the nation. 74 Fed. Reg. 32,744, 32,762 (July 8, 2009), 78 Fed. Reg. at 58,098.

CONCLUSION

For all of the foregoing reasons, the petitions for review should be dismissed.

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CERTIFICATE OF COMPLIANCE

In accordance with Federal Rules of Appellate Procedure 32(a)(7)(C), counsel hereby certifies that the foregoing **Brief For Intervenor California Air Resources Board** contains 5630 words, as counted by counsel's word processing system and not counting those portions of the brief described Federal Rule of Appellate Procedure 32(a)(7)(B)(iii).

This brief complies with the typeface and style requirements of Federal Rules of Appellate Procedure 32(a)(5) and (6). The brief has been prepared in a proportionally spaced typeface in 14-point, Times New Roman font, using Microsoft Word 2010.

Dated: May 26, 2015

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CERTIFICATE OF SERVICE

I hereby certify that the foregoing **Brief For Intervenor California Air Resources Board** was filed electronically with the Court's CM/ECF system, which will electronically serve all parties.

Dated: May 26, 2015

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ORAL ARGUMENT NOT YET SCHEDULED

**IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT**

Nos. 13-1283 & 13-1287

DALTON TRUCKING, INC., et al.,

Petitioners,

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, et al.,

Respondents.

**AMERICAN ROAD & TRANSPORTATION
BUILDERS ASSOCIATION**

v.

**UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY**

**On Petition for Review of Final Action of the
United States Environmental Protection Agency**

**FINAL BRIEF FOR RESPONDENTS UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY, et al.**

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July 16, 2015

1. Petitioners (No. 13-1283): Dalton Trucking, Inc.; Loggers Association of Northern California, Inc.; Robinson Enterprises, Inc.; Nuckles Oil Co., d/b/a Merit Oil Company; California Construction Trucking Association, Inc.; Construction Industry Air Quality Coalition; Delta Construction Company, Inc.; Southern California Contractors' Association, Inc.; Ron Cinquini Farming; and United Contractors (collectively, "California Petitioners").

Petitioners (No. 13-1287): American Road & Transportation Builders Association ("ARTBA").

2. Respondents: United States Environmental Protection Agency ("EPA") and Gina McCarthy, EPA Administrator.

3. Intervenors:

a. The State of California

4. Amici:

(B) Rulings Under Review

Petitioners seek review of the EPA action published at 78 Fed. Reg. 58,090 (Sept. 20, 2013) granting a request by the State of California for a waiver of preemption of emission standards for nonroad vehicles and engines pursuant to section 209(e) of the Clean Air Act, 42 U.S.C. § 7543(b).

(C) Related Cases

California Petitioners petitioned the U.S. Court of Appeals for the Ninth Circuit, challenging the same EPA action, in *Dalton Trucking, Inc. v. EPA*, No. 13-74019 (Nov. 15, 2013). On March 11, 2014, the Ninth Circuit issued an order, *sua sponte*, holding California Petitioners' petition in abeyance pending a determination by this Court regarding whether the instant petitions "were properly filed in [the D.C. Circuit] pursuant to 42 U.S.C. § 7607(b)(1)."

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GLOSSARY

APA	Administrative Procedure Act
ARTBA	American Road and Transportation Builders Association
CAA	Clean Air Act, 42 U.S.C. §§ 7401-7671q
CARB	California Air Resources Board
EPA	United States Environmental Protection Agency
LEV	Low Emission Vehicle
NAAQS	National Ambient Air Quality Standards
NO _x	Oxides of nitrogen
PM	Particulate matter
PM _{2.5}	Fine Particulate Matter
SIP	State Implementation Plan
TRU	Transportation Refrigeration Units

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STATEMENT OF JURISDICTION

Petitioners in both Nos. 13-1283 and 13-1287 challenge EPA's action under section 209(e)(2) of the Clean Air Act, 42 U.S.C. § 7543(e)(2), granting a request by the State of California for authorization of certain State emission standards for nonroad vehicles and engines. EPA's grant of California's authorization request is a final agency action within the meaning of the Clean Air Act's judicial review provision, 42 U.S.C. § 7607(b)(1), and EPA does not challenge the standing of Dalton Trucking et al. ("the California Petitioners") in Case No. 13-1283. EPA does not challenge Petitioner American Road & Transportation Builders Association's ("ARTBA's") standing to assert issues it raises in common with California Petitioners, but as discussed below, EPA contests ARTBA's standing to assert its separate "related" questions regarding the adoption of California's nonroad standards in other States.

STATUTES AND REGULATIONS

The pertinent statutes and regulations are set forth in the Petitioners' addenda and in the accompanying addenda of Respondents.

STATEMENT OF ISSUES

1. Does ARTBA have standing to raise three "related" and "subsidiary" questions in Case No. 13-1287, where ARTBA fails to identify any of its non-California members by name and fails to demonstrate that any injuries to these

members are concrete, non-speculative, redressable and traceable to the challenged action of EPA?

2. Is EPA's decision to authorize California's in-use, off-road diesel regulations ("Off-Road Diesel Decision" or "Decision") a nationally-applicable final agency action, properly reviewable in this Circuit, where the California Off-Road Fleet Requirements authorized by EPA may be automatically adopted by other States without further EPA review under 42 U.S.C. § 7543(e), and where California's requirements will affect both in-State and out-of-State off-road diesel fleets operating within that State?

3. Even if a regionally applicable action, is EPA's Decision properly reviewable in this Court because EPA constructively (and reasonably) determined that its action had nationwide scope or effect in light of the California requirements' impact on out-of-State fleets?

4. In deciding to approve California's Off-Road Diesel Fleet Requirements, did EPA reasonably consider whether California needed its nonroad engine emissions program as a whole?

5. Did EPA reasonably conclude, under either EPA's construction of 42 U.S.C. § 7543(e) or the one favored by petitioners, that the parties favoring denial of the waiver did not meet their burden of proof?

STATEMENT OF THE CASE

I. INTRODUCTION

This case involves consolidated petitions for review of EPA's approval of a request by the State of California for authorization of regulations to reduce emissions of particulate matter and oxides of nitrogen from in-use, nonroad diesel engines. Section 209(e) of the Clean Air Act, 42 U.S.C. § 7543(e), recognizes California's special role in regulating emissions from mobile sources in light of that State's unique air pollution problems and its historic cutting-edge role in developing effective mobile source emission controls. Accordingly, the law gives California broad discretion to set emission standards for specified nonroad vehicles and engines, and it directs EPA to authorize California's standards unless EPA affirmatively makes at least one of three statutorily-prescribed findings. Once California standards are authorized by EPA, identical standards can be adopted and enforced elsewhere.

Petitioners ARTBA and California Petitioners together represent a diverse set of companies and trade groups associated with logging, farming and construction interests. Petitioners focus much of their argument not on the merits of EPA's approval action, but on whether this Court is the correct venue. In part, petitioners apparently seek an advisory opinion on the question of whether other States may adopt California's nonroad standards. In any case, because EPA's approval action has national applicability, this is the correct venue for review of the Decision applying

section 307 of the CAA, 42 U.S.C. § 7607, and any separate review of States' authority to adopt California's nonroad standards is unripe.

With respect to the merits, Petitioners argue that EPA incorrectly applied the statutory criteria at 42 U.S.C. § 7543(e)(2)(A)(ii) in approving California's nonroad diesel engine standards. In fact, EPA reasonably applied its longstanding interpretation in concluding that the criterion in section 7543(e)(2)(A)(ii) calls for an agency assessment of whether California needs a nonroad emissions program as a whole. Moreover, EPA made clear that even using Petitioners' proposed interpretation of the statutory criteria, a fully developed administrative record led EPA to reasonably determine that the authorization's opponents did not meet the burden of proof needed for EPA to decline the authorization, and the same result would have been reached.

II. STATUTORY AND REGULATORY BACKGROUND

A. CAA Section 209(e) Preemption of Emission Standards

The Clean Air Act ("CAA"), 42 U.S.C. §§ 7401-7671q, establishes a comprehensive program to control and improve the nation's air quality. While the Act generally preserves States' flexibility to regulate air emissions to meet this goal, Title II of the CAA, *id.* §§ 7521-90, governing "emission standards for moving sources," strikes a different balance. *Inter alia*, Title II's Part A – which addresses

both new automobiles and new and other “nonroad” vehicles and engines¹ – authorizes EPA to promulgate nationally applicable emission standards, 42 U.S.C. §§ 7521, 7547, and generally preempts States from adopting their own standards. *Id.* §§ 7543(a), 7543(c). It also preserves a special role for California in regulating emissions from mobile sources, in light of that State’s unique air pollution problems and its pioneering efforts to develop effective mobile source emission controls. *Id.*; see also *Motor & Equip. Mfrs. Ass’n, Inc. v. EPA*, 627 F.2d 1095, 1108-11 (D.C. Cir. 1979) (“*MEMA I*”) (discussing legislative history).

For example, under CAA section 209(e), 42 U.S.C. § 7543(e), States are expressly preempted from adopting “any standard or other requirement relating to the control of emissions” from new engines used in construction or farm equipment or vehicles and that are under 175 horsepower, or from new locomotive engines. *Id.* § 7543(e)(1)(A), (B).² For all other nonroad engines (including engines that are no longer “new”), States are preempted from adopting such standards and requirements, *except that* California may adopt and enforce such regulations if EPA authorizes it to

¹ The term “nonroad engines” describes a wide variety of mobile, non-highway engines, including engines used in tractors, lawnmowers, construction equipment such as bulldozers and cranes, locomotives, and marine craft. See 40 C.F.R. §§ 89.1, 1068.30. The terms “nonroad” and “off-road” have synonymous meanings in this brief.

² For the nonroad engines and equipment relevant to this case, EPA regulations define the term “new” to mean “a domestic or imported nonroad vehicle the equitable or legal title to which has never been transferred to an ultimate purchaser.” (footnote continued . . .)

do so, according to specific enumerated criteria. *Id.* § 7543(e)(2). For these other non-road engines and vehicles – the subject of this case – the Act provides:

[T]he Administrator shall, after notice and opportunity for public hearing, authorize California to adopt and enforce standards and other requirements relating to the control of emissions from such vehicles or engines if California determines that California standards will be, in the aggregate, at least as protective of public health and welfare as applicable Federal standards. No such authorization shall be granted if the Administrator finds that –

- (i) the determination of California is arbitrary and capricious,
- (ii) California does not need such California standards to meet compelling and extraordinary conditions, or
- (iii) such California standards and accompanying enforcement procedures are not consistent with this section [of the Act].

Id. § 7543(e)(2)(A). Under section 7543(e)(2)(B)(i), subject to certain conditions, once California’s “standards and implementation and enforcement” for qualifying nonroad engines are authorized, other States may “adopt and enforce” identical provisions as their own. *Id.* § 7543(e)(2)(B)(i).

Congress established EPA’s authority to promulgate emission standards for nonroad engines in the Clean Air Act Amendments of 1990, 42 U.S.C. § 7547; *see* Pub. L. No. 101-549, § 213, 104 Stat. 2399, 2500 (1990); *see also Engine Mfrs. Ass’n v. EPA*, 88 F.3d 1075, 1080-82 (D.C. Cir. 1996). Section 7543(e), including its waiver provision for California, was closely modeled after a similar provision for new

40 C.F.R. § 1074.5 (definition of “new”).

vehicles contained in 42 U.S.C. §§ 7507 and 7543(a), (b) (CAA subsections 177 and 209(a) and (b)), adopted in 1977.

Section 7543(b) reflects congressional intent to give California broad discretion to set emission standards for new motor vehicles; accordingly, EPA is required to grant a request from California to “waive” federal preemption³ unless EPA affirmatively makes at least one of the findings laid out in subsections 7543(b)(1)(A) through (C) -- *i.e.*, unless EPA finds that California’s “protectiveness determination . . . was arbitrary and capricious; that the State does not need the standards; or that the standard and enforcement procedures are inconsistent with [the CAA’s emission requirements for new motor vehicles].” *MEMA I*, 627 F.2d at 1120-23. In any challenge to a waiver under 7543(b), “the burden of proof lies with the parties favoring denial of the waiver.” *Id.* at 1121. EPA is not required to affirmatively find that the conditions warranting denial do not exist. *Id.* at 1120. Rather, EPA must examine the evidence submitted by those opposed to a waiver to determine if it is sufficient to overcome the presumption that the waiver should be granted. *Id.* at 1122.

³ In contrast to section 7543(b), which authorizes EPA to “waive” federal preemption of state standards for new motor vehicles for California, section 7543(e) establishes EPA’s power to “authorize” California to adopt nonroad emission standards in the absence of federal standards. For convenience, at various times in this brief EPA uses the term “waiver” to refer to both settings.

In *MEMA I*, this Court examined the legislative history of section 7543(b) and noted that “California’s unique problems and pioneering efforts justified a waiver of the preemption section to the State of California.” *See MEMA I*, 627 F.2d at 1109 (citing S. Rep. No. 90-403, 90th Cong., 1st Sess. 33 (1967)).

According to the Committee, the advantages of the California exception included the benefits for the Nation to be derived from permitting California to continue its experiments in the field of emissions control benefits the Committee recognized might “require new control systems and design” [S. Rep. No. 90-403 at 33 (1967)] and the benefits for the people of California to be derived from letting that State improve on “its already excellent program” of emissions control, *id.* ¶. There is no intimation in the Senate Committee report that the waiver provision was designed to permit California to adopt only a portion of such a program.

MEMA I, 627 F.2d at 1109-10.

Congress amended subsection 7543(b) in 1977, to allow California to consider the protectiveness of its standards “in the aggregate,” rather than requiring that each standard proposed by the State be as or more stringent than its federal counterpart.

As this Court noted in *MEMA I*:

The intent of the 1977 amendment was to accommodate California’s particular concern with oxides of nitrogen, which the State regards as a more serious threat to public health and welfare than carbon monoxide. California was eager to establish oxides of nitrogen standards considerably higher than applicable federal standards, but technological developments posed the possibility that emission control devices could not be constructed to meet both the high California oxides of nitrogen standard and the high *federal* carbon monoxide standard.

627 F.2d at 1110 n.32 (emphasis added). Whereas federal law *pre*-1977 required

California to show that *each* of its separate emissions standards was “more stringent”

than corresponding federal law, the 1977 amendments specified that, to obtain a waiver, California needed to show “only that [its] standards in the aggregate were at least as protective of public health and welfare as [federal law].” *Id.* This test – referred to herein as the “protectiveness” test – “permits the State to maintain a high standard for oxides of nitrogen but a standard for carbon monoxide somewhat lower than the federal standard.” *Id.*

In all material respects, the waiver provisions set forth for new motor vehicles in section 7543(b) are identical to the corresponding provisions for nonroad vehicles in subsection 7543(e). *Compare* 42 U.S.C. § 7543(b)(1)(A) through (C) and 42 U.S.C. § 7543(e)(2)(A)(i) through (iii). Petitioners do not dispute this fact. Petitioners’ Brief (“Pet. Br.”) at 50 (“relevant portions” of 42 U.S.C. § 7543(e) and 42 U.S.C. § 7543(b) are “almost identical”).

Finally, it bears note that EPA’s own authority to adopt emission standards for off-road engines is limited to *new* equipment and does not include the authority to control in-use, off-road emissions as California has here. *See* 42 U.S.C. § 7547(a)(2), (3). As California noted when it submitted its Off-Road Requirements to EPA, “California is the only governmental jurisdiction in the nation entrusted with authority to adopt emission standards and other emission-related requirements for in-use nonroad engines.” J.A. 721-22 (EPA-HQ-OAR-2008-0691-0270, at 17-18 (supplemental request for EPA authorization) (hereafter, “Decision docket 0691-

xxxx”). *See generally Am. Trucking Ass’n v. EPA*, 600 F.3d 624, 625 (D.C. Cir. 2010) [“ATA”]; *Engine Mfrs. Ass’n v. EPA*, 88 F.3d 1075, 1080, 1089 (D.C. Cir. 1996).

B. EPA’s Regulation to Implement 42 U.S.C. § 7543(e).

In 1994, EPA promulgated regulations implementing 42 U.S.C. § 7543(e). *See* 59 Fed. Reg. 36,969 (July 20, 1994) (“1994 Waiver Rule”). As part of its rulemaking, EPA addressed two regulatory provisions that are relevant here.

First, the 1994 Waiver Rule’s preamble confirmed that while California may adopt nonroad standards for eligible nonroad engines or vehicles before receiving EPA authorization under 42 U.S.C. § 7543(e)(2)(A), enforcement of California’s standards is conditioned upon EPA’s ultimate approval. 59 Fed. Reg. at 36,982. EPA’s regulation, now codified at 40 C.F.R. §§ 1074.101(a), (b), specifies that California must “include the record on which the state rulemaking was based” and EPA “will provide notice and opportunity for a public hearing regarding such requests.” *See also* 59 Fed. Reg. at 36,987 (promulgating original version of regulation, at 40 C.F.R. §§ 85.1604(a), (b)(1994)). Second, the preamble makes clear that no further EPA authorization is required before other States adopt California standards approved by EPA. “[T]he Act neither requires that states obtain EPA authorization to impose California’s nonroad engine standards nor authorizes [EPA] to require that states do so.” 59 Fed. Reg. at 36,983. Accordingly, EPA’s corresponding regulations specify that following notice to EPA’s Administrator, any eligible State other than California may “adopt and enforce emission standards for any period for nonroad

engines and vehicles” as long as the standards (and the State’s corresponding implementation and enforcement measures) are “identical . . . to the California standards authorized” by EPA. 40 C.F.R. § 1074.110. *See also* 59 Fed. Reg. at 36,987 (promulgating original version of regulation, at 40 C.F.R. § 85.1606).⁴

C. This Court’s Venue Under 42 U.S.C. § 7607(b)(1)

CAA section 307(b)(1), 42 U.S.C. § 7607(b)(1), governs judicial review of certain specified EPA actions or “any other final action” taken by EPA under the Act. *See generally Harrison v. PPG Indus.*, 446 U.S. 578 (1980). Under the first sentence of this provision, a petition for review challenging one of the listed actions, or any “nationally applicable regulations,” may be filed “*only* in the United States Court of Appeals for the District of Columbia.” 42 U.S.C. § 7607(b)(1) (emphasis added). By contrast, under the second sentence of this subsection, petitions challenging a final action that is “locally or regionally applicable may be filed only in the United States Court of Appeals for the appropriate circuit.” *Id.* Finally, under the third sentence of the subsection, even where a petition challenges a locally or regionally applicable action, the petition still “may be filed only in the [D.C. Circuit] if such action is based on a determination of nationwide scope or effect and if in taking such action the

⁴ In accordance with 42 U.S.C. § 7543(e)(2)(B), EPA regulations further provide that outside of California, adopting States must provide two years of lead time before the California standards take effect in the adopting State. 40 C.F.R. § 1074.110(a)(4), (5).

Administrator finds and publishes that such action is based on such a determination.”

Id.

This Court has found that 42 U.S.C. § 7607(b)(1) is a venue provision rather than a jurisdictional provision, the application of which can be waived. *Texas Mun. Power Agency v. EPA*, 89 F.3d 858, 867 (D.C. Cir. 1996).

III. FACTUAL BACKGROUND

A. California’s Authority to Regulate Off-Road Diesel Fleet Engines

On March 1, 2012, California’s Air Resources Board (“CARB”) requested that EPA authorize its regulations to reduce particulate matter (PM) and oxides of nitrogen (NO_x) emissions from in-use off-road (nonroad) diesel-fueled equipment with engines greater than 25 horsepower (hereafter, “Off-Road Fleet Requirements” or “Fleet Requirements”). The request to EPA was CARB’s third associated with its regulation of in-use, nonroad, diesel-fueled vehicles. CARB originally asked EPA to authorize in-use off-road fleet regulations in August 2008, and it did so again in February 2010, following amendments adopted by the State. *See* 73 Fed. Reg. 58,585 (Oct. 7, 2008) and 73 Fed. Reg. 67,509 (Nov. 14, 2008) (2008 CARB proposal); 75 Fed. Reg. 11,880 (Mar. 12, 2010) (2010 CARB proposal). CARB’s March 1, 2012 request followed additional amendments to its off-road fleet regulations adopted by the State in December 2011. *See generally* 78 Fed. Reg. 58,090, 58,093 (Sept. 20, 2013).

EPA has previously recognized California’s long-term need for a separate and

distinct vehicle emissions program “to address compelling and extraordinary conditions” in the State. *See, e.g.*, 74 Fed. Reg. 32,744, 32,762 (July 8, 2009).

“California – the South Coast and San Joaquin Air basins in particular – continues to experience some of the worst air quality in the nation.” *Id.*; *see also* 78 Fed. Reg. at 58,098.⁵ The State presently fails to meet national ambient air quality standards (“NAAQS”) for both fine particulate matter (“PM_{2.5}”) and ozone, and NOx leads to atmospheric formations of both. 78 Fed. Reg. at 58,098.⁶

As CARB noted when its off-road fleet regulations were first proposed, existing, in-use diesel vehicles are a significant source of PM and NOx emissions within the State.

Off-road vehicles are a significant source of diesel particulate matter, as well as NOx emissions that lead to ozone and ambient PM. Statewide, they are responsible for nearly a quarter of the total PM emissions from mobile diesel sources and nearly a fifth of the total NOx emissions from mobile diesel sources. Although increasingly stringent new engine standards are reducing emissions from off-road diesel vehicles over time, because of their durability, most [off-road diesel] vehicles operate for several decades before being retired. Thus, in-use off-road diesel vehicles would continue to pose significant health risk for many years if this proposed regulation is not adopted

⁵ In 2010, EPA granted requests by California to redesignate the San Joaquin Valley and the South Coast Air Basin as “extreme” nonattainment areas for the 8-hour ozone NAAQS. 75 Fed. Reg. 24,409 (May 5, 2010). They are the only two ozone nonattainment areas classified as extreme in the entire Nation.

⁶ The NAAQS are national air quality standards established by EPA to protect public health and welfare, and which States have the primary responsibility to implement. *See* 42 U.S.C. §§ 7409, 7410, 7502.

Decision docket 0691-0002, attachment A at 7-10 (JA 794-97).

In 2010, CARB reaffirmed that in-use, nonroad diesel vehicles continued to be “a significant source of air pollution emissions in California,” one that contributed to ongoing violations of the NAAQS and to continuing localized health risk, “including premature death.” Decision docket 0691-0283, at 1 (JA 736) (CARB Resolution 10-47). CARB reaffirmed that conclusion in 2012. Decision docket 0691-0270, at 18 (JA 722). In particular, CARB emphasized that without reductions from in-use off-road diesel vehicles, neither San Joaquin Valley nor the South Coast Air basins will be able to attain applicable NAAQS standards, even with the anticipated reduction in emissions associated with newer, cleaner vehicles. Decision docket 0691-0002, attachment A at 7 (JA 794). *See also id.* at 10 (JA 797) (“[w]hile all sources of NO_x emissions are important, off-road diesel vehicles are one of four major categories that will determine whether California is able to meet the 2014 deadline for PM_{2.5} attainment in the South Coast Air Basin”).

EPA invited comment on CARB’s Fleet Requirements on August 21, 2012, 77 Fed. Reg. 50,500 (Aug. 21, 2012), and held a public hearing on CARB’s request on September 20, 2012. 78 Fed. Reg. at 58,093. Comments were received from counsel for ARTBA, Dalton, and other individual California Petitioners, during this time. *See id.* at 58,094 n.29 (listing written comments). On September 20, 2013, EPA authorized California’s Fleet Requirements, finding that the grounds needed to

disapprove California's standards under 42 U.S.C. § 7543(e)(2)(A) were not met. 78 Fed. Reg. at 58,091, 58,097, 58,111-19. Because its decision affected "not only persons in California, but also entities outside the state who must comply with California's requirements," EPA determined that its action was one of national applicability for purposes of 42 U.S.C. § 7607(b)(1). 78 Fed. Reg. at 58,121.

B. Overview of California's Fleet Requirements

California's Off-Road Fleet Requirements establish statewide performance standards applicable to any person, business, or government agency that owns and/or operates in-use non-road diesel vehicles in California with a maximum horsepower ("hp") of 25 hp or greater. 78 Fed. Reg. at 58,091. While specific aspects of California's off-road fleet regulations have changed since they were first proposed, a summary by CARB staff at that time still holds true.

The scope of the regulation is far-reaching; vehicles of dozens of types used in over 8,000 fleets, in industries as diverse as construction, air travel, manufacturing, landscaping, and ski resorts The regulation would affect the warehouse with one diesel forklift, the landscaper with a fleet of a dozen diesel mowers, the county that maintains rural roads, the landfill with a fleet of dozers, as well as the large construction firm or government fleet with hundreds of diesel loaders, graders, scrapers, and rollers.

JA 788 (Decision docket 0691-0002, attachment A at 1) (initial CARB request for EPA authorization).

The Fleet Requirements apply to any qualifying vehicles operating within California, regardless of where such vehicles are registered or owned. The regulation

defines “Fleet” as “all off-road vehicles and engines owned by a person, business or government agency that are operated within California and are subject to the regulation. A fleet may consist of one or more vehicles. A fleet does not include vehicles that have never operated in California.” JA 503 (Decision docket 0691-0292, at 6) (promulgating Cal. Admin. Code tit. 13, § 2449(c)(20)). EPA’s administrative record associated with its Decision is replete with references to the impact CARB’s Fleet Requirements may have on fleets outside the State. For example, the 2008 CARB staff report associated with CARB’s initial off-road fleet rule stressed that the regulation “would establish fleet average emission rate targets for PM and NO_x for all off-road vehicles operating in the state, regardless of whether they are California based.” JA 788 (Decision docket 0691-0002, attachment A) (California Air Resources Board Staff Report: Initial Statement of Reasons for Proposed Rulemaking; Proposed Regulation for In-Use Off-Road Diesel Vehicles), at 1. In responses to comments on its proposed 2010 rule, CARB noted that “[o]ut-of-state fleets will have to comply with all the requirements of the Off-Road regulation, if they choose [to] operate within the State.” JA 1667 (Decision docket 0691-0291, at 56) (CARB Final Statement of Reasons for Rulemaking, Dec. 17, 2010). Similarly, at EPA’s September 2012 public hearing on the Fleet Requirements, a CARB official stressed that “[t]he regulation applies equally to all equipment that is operated in the state, regardless of where the fleet itself is located.” JA 698-99 (Decision docket 0691-0298, at 122-23) (Sept. 20, 2012 public hearing transcript).

C. EPA's Final Action and Petitioners' Challenges

Previous cases reviewing EPA waivers for CARB vehicle emission standards, under both 42 U.S.C. §§ 7543(b) and (e), have all been heard in the D.C. Circuit. *See, e.g., Motor & Equip. Mfrs. Ass'n v. EPA*, 627 F.2d 1095 (D.C. Cir. 1979); *Motor & Equip. Mfrs. Ass'n v. Nichols*, 142 F.3d 449 (D.C. Cir. 1998); *ATA*, 600 F.3d at 624. Against this background, EPA expressly found that its Off-Road Diesel Decision would “indirectly affect not only persons in California, but also entities outside the [S]tate who must comply with California’s requirements.” 78 Fed. Reg. at 58,121. “For this reason, [EPA] determine[d] and [found]” the Decision to be an action of “national applicability,” subject to judicial review under 42 U.S.C. § 7607(b)(1) “only in the United States Court of Appeals for the District of Columbia Circuit.” *Id.*

On November 18 and 19, 2013, respectively, California Petitioners and ARTBA filed timely challenges to EPA’s Off-Road Diesel Decision in this Court, *see Dalton Trucking, Inc. et al. v. EPA*, No. 13-1283 (D.C. Cir. filed Nov. 18, 2013) and *Am. Road & Transp. Builders Ass’n v. EPA*, No. 13-1287 (D.C. Cir. filed Nov. 19, 2013). In the belief that EPA’s Decision was purely a “regionally applicable” action, California Petitioners also petitioned for review in the Ninth Circuit. *Dalton Trucking, Inc., et al. v. EPA*, No. 13-74019 (9th Cir. filed Nov. 18, 2013). ARTBA did not file its own petition for review in the Ninth Circuit, but instead sought and was granted leave to intervene on California Petitioners’ behalf. *Dalton Trucking, Inc. v. EPA*, No. 13-74019 (9th Cir. Dkt. # 13) (Dec. 31, 2013).

EPA moved to dismiss, or transfer, California Petitioners' Ninth Circuit petition to this Court, *id.*, Dkt. 14 (Jan. 10, 2014), but the Ninth Circuit ordered that EPA's motion be held in abeyance pending a D.C. Circuit ruling as to whether Petitioners' respective challenges were "properly filed" here. *Id.*, Dkt. 19 (Mar. 11, 2014).

STANDARD OF REVIEW

The Court's review of EPA's decision not to withhold approval of California's Fleet Requirements is governed by section 706 of the Administrative Procedure Act, 5 U.S.C. § 706. *MEMA I*, 627 F.2d at 1105. Thus, EPA's decision must be upheld unless it is "arbitrary, capricious . . . or otherwise not in accordance with law," or if it fails to meet statutory, procedural, or constitutional requirements. 5 U.S.C. § 706(2). *See also ATA*, 600 F.3d at 627. Moreover, under *MEMA I*, in reviewing challenges to EPA waiver decisions under 42 U.S.C. § 7543, California's regulations are "presumed to satisfy the waiver requirements" and "the burden of proof lies with the parties favoring denial of the waiver." 627 F.2d at 1121.

The "arbitrary or capricious" standard presumes the validity of agency actions, and a reviewing court is to uphold an agency action if it satisfies minimum standards of rationality. *Small Refiner Lead Phase-Down Task Force v. EPA*, 705 F.2d 506, 519-21 (D.C. Cir. 1983); *Ethyl Corp. v. EPA*, 541 F.2d 1, 34 (D.C. Cir. 1976) (en banc). Where EPA has considered the relevant factors and articulated a rational connection between the facts found and the choices made, its regulatory choices must be upheld.

Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983). The Court must “presume that the Administrator acted lawfully and so conclude unless [the Court’s] thorough inspection of the record yields no discernible rational basis for his action.” *MEMA I*, 627 F.2d at 1105.

With regard to questions of statutory interpretation, as the agency to which Congress expressly delegated implementation authority, EPA’s interpretation of the CAA “governs if it is a reasonable interpretation of the statute – not necessarily the only possible interpretation, nor even the interpretation deemed *most* reasonable by the courts.” *Entergy Corp. v. Riverkeeper, Inc.*, 556 U.S. 208, 218 (2009) (emphasis in original) (citing *Chevron U.S.A., Inc. v. NRDC*, 467 U.S. 837, 843-44 (1984)). In evaluating EPA’s interpretation of section 7543, the Court must affirm EPA’s construction unless petitioners show “by clear and convincing evidence” that its construction is unreasonable. *MEMA I*, 627 F.2d at 1106.

SUMMARY OF THE ARGUMENT

California Petitioners have standing to assert the California-based issues raised in their petition (No. 13-1283), but ARTBA fails to demonstrate its separate standing to raise several separate questions relating to the implications of EPA’s Decision for other States. ARTBA fails to identify a single non-California member that has suffered imminent harm as a result of EPA’s waiver decision and thus has failed to make the minimum threshold showing needed to demonstrate standing.

Regardless of ARTBA's standing to raise its unique issues, the arguments it and California Petitioners present to challenge venue in this Court are invalid. For numerous reasons, these petitions were properly filed in this Court. First, venue in this Court is proper because EPA's Off-Road Diesel Decision is a nationally-applicable final action because other States may automatically adopt California's nonroad standards without further EPA review under 42 U.S.C. § 7543(e). This Court has long recognized California's historical "pioneering efforts" in vehicle emissions technology, and Congress' expectation that California would remain at the cutting edge of national vehicle emission standards innovation. *MEMA I*, 627 F.2d at 1109-10. Congress carved out a special role for California in section 7543 to develop pioneering mobile emissions standards available for adoption throughout the Nation, and it is fully appropriate that EPA's decisions authorizing such standards be treated as nationally-applicable actions, reviewable by this Court.

EPA's Decision is also a nationally-applicable action because CARB's Fleet Requirements would regulate off-road diesel fleets based *both* in California and out of State. Whether an action is "nationally-applicable" or "locally- or regionally-applicable" turns on who is regulated by the action, not by the *de facto* impacts of the regulation. *Natural Res. Def. Council, Inc. v. Thomas*, 838 F.2d 1224, 1249 (D.C. Cir. 1988). The plain language of California's nonroad diesel standards and the administrative record reviewed by EPA both make clear that the standards apply to

all qualifying nonroad engine fleets operated within California, regardless of where such fleets are based.

Second, venue in this Court is proper because EPA determined that its Off-Road Diesel Decision was one with “nationwide scope or effect.” Under 42 U.S.C. § 7607(b), even petitions for review challenging locally or regionally applicable EPA actions may be filed only in the D.C. Circuit, where EPA finds that such actions have nationwide scope or effect. EPA made just such a finding here. Congress recognized the importance of creating uniform interpretations of nationally-applicable agency actions under the Clean Air Act by centralizing judicial review of such actions in this Court. Congress similarly authorized this Court to review regionally-applicable final actions determined by EPA to have nationwide scope and effect. Such a finding is among the “rare circumstances” where agency action is unreviewable under the APA, 5 U.S.C. § 701(a)(2); *Lincoln v. Vigil*, 508 U.S. 182, 190-91 (1993). At a minimum, even if reviewable, EPA’s interpretation of the statute is entitled to significant deference and must be upheld as long as it is reasonable. *Chevron*, 467 U.S. at 842-44. In this case, EPA’s “nationwide scope or effect” determination was based on its consistent interpretation of section 7543 and an analytical approach EPA has applied for decades. It must, therefore, be upheld.

On the merits, EPA reasonably concluded that California’s need for its nonroad diesel program should be determined based on consideration of California’s need for its nonroad program as a whole. EPA reasonably interpreted the criterion

set forth in section 7543(e)(2)(A)(ii) – whether California needs “such California standards” to meet compelling and extraordinary conditions – to refer back to the introductory language of section 7543(e)(2)(A), which requires California to determine whether its “standards,” “in the aggregate” – a phrase that refers to California’s nonroad program as a whole -- are at least as protective as applicable federal standards. Amendments to the Clean Air Act in 1977, which allow the protectiveness determination to be made “in the aggregate,” support EPA’s reading of the statute. It would be anomalous for Congress to permit California to have a program in which some standards were less stringent than federal standards so long as the whole is more protective, yet simultaneously require California to justify its need for each standard individually.

EPA’s reading of the statute is also consistent with congressional purpose. One of the central bases for Congress’ decision to allow California to obtain waivers from federal preemption was to allow that State to continue to act as a laboratory for innovation in developing new pollution control technologies. To that end, Congress intended to grant California the “broadest possible discretion.” *MEMA I*, 627 F.2d at 1110-11. Considering California’s need for its nonroad program as a whole is consistent with this congressional intent, whereas Petitioners’ proposal to require EPA to consider each element of the program in isolation is not.

Finally, even if petitioners’ interpretation of section 7543 were the only reasonable interpretation of the statute under *Chevron*, and it is not, there is no basis

to vacate EPA's decision as petitioners request, in light of the ample record demonstrating that EPA's decision was reasonable even under the alternative test petitioners propose. EPA did not merely provide an extensive explanation in its Decision of why EPA's traditional interpretation is a better reading of the text of subsections 7543(b) and (e), and why California was entitled to a waiver under its traditional interpretation. EPA also extensively analyzed whether California was entitled to a waiver under the approach proposed by petitioners, and found that it was.

Petitioners offer only a bare, unsupported claim that the record fails to show California's need for its proposed standards to meet compelling and extraordinary conditions in the State. This unsupported assertion is insufficient to overturn the presumption of validity of California's waiver and EPA's reasoned evaluation of petitioners' claims. Petitioners also claim that EPA deprived the public of "an opportunity to make meaningful comments on whether a waiver should be granted."

In fact, the record shows that this is far from the case and that EPA examined comments from petitioners, and others, under both EPA's traditional test and under the test petitioners favor. EPA's notice of decision shows that its action was reasonable under either test.

ARGUMENT

I. THIS COURT SHOULD REVIEW AND DETERMINE ARTBA'S STANDING TO RAISE THE SEPARATE ISSUES IT PRESENTS IN NO. 13-1287

EPA agrees that one or more of the California Petitioners in Case No. 13-1283 has demonstrated standing to assert the issues raised in that petition. Thus, this Court has jurisdiction to review the merits in that case. However, EPA disputes the suggestion (Pet'r Br. at 17) that California Petitioners' standing in Case No. 13-1283 obviates the need to review the adequacy of ARTBA's standing for its own petition, Case No. 13-1287, and the "related or subsidiary questions" it alone raises. *See* Pet'r Br. at 2. It is true that where Article III standing exists for one petitioner, a court need not examine the standing of others, *as long as* "all petitioners raise the same issues," *Grocery Mfrs. Ass'n v. EPA*, 693 F.3d 169, 175 (D.C. Cir. 2012), and any one individual party's standing "makes no difference to the merits of the case." *LaRoque v. Holder*, 650 F.3d 777, 792 (D.C. Cir. 2011). Yet while this maxim may apply to the issues ARTBA and California Petitioners raise on behalf of their common, California-based members, *see* Aff. Of Lawrence J. Joseph ("Joseph Aff."), at ¶ 6, it does not apply to the several distinct issues ARTBA raises alone relating to the EPA Decision's implications for other States. *See* Pet'r Br. at 2-3.

ARTBA represents "the collective interests of the U.S. transportation construction industry," Joseph Aff., at ¶ 4, and claims associational standing based on alleged injuries to its members rather than on an injury to itself. Pet'r Br. at 17 n.5.

Accordingly, ARTBA was required to demonstrate that: (1) at least one identified member would have standing to sue in its own right; (2) the interests ARTBA seeks to protect are germane to the organization's purpose; and (3) neither the claim asserted nor the relief requested requires the participation of individual members. *Amer. Library Ass'n v. FCC*, 401 F.3d 489, 492 (D.C. Cir. 2005). Moreover, as with any party, to show Article III standing ARTBA was required to demonstrate that its members "suffered an injury-in-fact . . . which is (a) concrete and particularized and (b) actual or imminent rather than conjectural or hypothetical." *Id.* ARTBA was also required to show a causal connection between that claimed injury and the challenged action, and that it is "likely, as opposed to merely speculative, that the injury will be redressed by a favorable decision." *American Chemistry Council v. Dep't of Transp.*, 468 F.3d 810, 815 (D.C. Cir. 2006).

With regard to the separate issues it presents, ARTBA has not demonstrated that it has met this test. Specifically, ARTBA fails to identify a single *non*-California based member it asserts has been (or imminently will be) injured. *See Summers v. Earth Island Inst.*, 555 U.S. 488, 494-95 (2009) (to have standing organization must identify specific member with a specific concrete injury).

It is axiomatic that Article III standing is a prerequisite to federal jurisdiction, and that petitioners bear the burden of establishing their standing. *Amer. Library Ass'n*, 401 F.3d at 493. Even as EPA agrees that this Court may consider the numerous challenges to EPA's Off-Road Diesel Decision that ARTBA and

California Petitioners raise together, ARTBA has not demonstrated that it has standing to present the non-California “related or subsidiary questions” it alone has raised.⁷ Accordingly, the Court should dismiss ARTBA’s petition as to the non-California “related or subsidiary questions” that ARTBA alone raises.

II. PETITIONERS’ CHALLENGE TO EPA’S OFF-ROAD DIESEL DECISION IS PROPERLY FILED IN THIS COURT.

A. California Petitioners’ and ARTBA’s Common Challenges to the “National-Applicability” and “Nationwide Scope and Effect” of EPA’s Decision Are Invalid.

This Court has found that 42 U.S.C. § 7607(b) is a venue provision, *Tex. Mun. Power Agency v. EPA*, 89 F.3d at 867, and petitioners devote an extraordinary proportion of their brief – over half their “Argument,” in fact – to challenging this Court’s venue over their case. *See* Pet’r Br. at 18-42. Petitioners jointly raise several common objections on this front. These objections focus on petitioners’ theories that EPA’s Decision was neither a “nationally applicable” final action, reviewable via the first sentence of 42 U.S.C. § 7607(b), Pet’r Br. at 26-28, nor a regional action of nationwide scope and effect reviewable under 42 U.S.C. § 7607(b)’s third sentence, Pet’r Br. at 23-24. Petitioners also cite to practical reasons (*e.g.*, geographic territory covered by CARB’s Fleet Requirements; location of California Petitioners; familiarity

⁷ Separate and apart from the adequacy of its standing to bring non-California challenges, ARTBA also waived its opportunity to challenge this Court’s venue in this case by failing to file its own petition for review in the Ninth Circuit, as shown *infra* at 39-40.

of Ninth Circuit judges with “local conditions and issues”) why they believe the nexus of the parties and subject matter to the Ninth Circuit make that court a preferred venue. Pet’r Br. at 30. Petitioners are wrong on all counts.

1. EPA’s Off-Road Diesel Decision Is a Nationally-Applicable Final Action Because Other States May Automatically Adopt California’s Nonroad Engine Standards Without Further EPA Review, Under 42 U.S.C. § 7543(e).

First, the plain language of 42 U.S.C. § 7543(e) – in particular, the authority it gives to States other than California to adopt identical nonroad diesel standards once CARB’s Fleet Requirements are approved – suffices to demonstrate the “national applicability” of EPA’s Decision, without more.⁸

While subsection 7543(e)(2)(A) gives California a primary role in regulating emissions from nonroad engines, subsection 7543(e)(2)(B) gives the other 49 States the concomitant right to “follow California’s lead and adopt a rule identical to California’s” if they choose to do so. *ATA*, 600 F.3d at 626. In relevant part, under that subsection “[a]ny State other than California . . . may adopt and enforce, after notice to the Administrator [of EPA], for any period, standards . . . if . . . such

⁸ Although EPA found and determined that granting California authorization was an action of national applicability, 78 Fed. Reg. at 58,121, this formal step was not required for this Court to have exclusive jurisdiction. Under the CAA, EPA must make a finding and determination only where the applicability of the decision is local or regional but is based on an underlying determination that is nationwide in scope. 42 U.S.C. § 7607(b). Thus, even if the Court rejects the national applicability of EPA’s action, EPA’s finding and determination satisfied this alternative basis for D.C. Circuit venue, as shown *infra* at 31-33; 34-37.

standards . . . are identical, for the period concerned, to the California standards authorized by [EPA].” 42 U.S.C. § 7543(e)(2)(B). No further EPA authorization is required or allowed before such States adopt California’s standards, once they are approved by EPA. 59 Fed. Reg. at 36,983; 40 C.F.R. § 1074.110.

In this case, of course, this “plain language” reading of section 7543 makes perfect sense in light of what is at issue, *i.e.*, EPA’s authorization of the Nation’s first and *only* set of emission standards for in-use, nonroad diesel vehicles. EPA’s approval of those standards is an action with nationwide implications. EPA’s Decision is one that, if upheld, may govern statewide off-road diesel fleet requirements for many other States and, thus, it is a nationally-applicable action that this Court is singularly empowered to review.

2. This Court Has Consistently Treated EPA Decisions to Authorize California’s Nonroad Vehicle Emission Regulations as Nationally Significant Final Actions.

While this Court must satisfy itself of its own authority to hear these petitions for review, it is instructive to note that the Court has consistently treated similar petitions for review as nationally significant actions reviewable in this Court.⁹ Specifically, as petitioners note, this Court reviewed EPA approvals of CARB emission rules for new motor vehicles in both *MEMA I*, 627 F.2d at 1095, and *Motor*

⁹ EPA agrees with petitioners (*see* Pet’r Br. at 34-35) that this Court has not previously addressed whether it has exclusive jurisdiction over EPA waivers from federal preemption for mobile sources under the CAA. Heretofore, that jurisdiction (footnote continued . . .)

Equip. Mfrs. Ass'n v. Nichols, 142 F.3d 449 (D.C. Cir. 1998). Pet'r Br. at 28-29.

EPA's approval in these cases came under subsection 7543(b), rather than subsection 7543(e), but for current purposes they had the same effect: CARB's emission rules for new motor vehicle rules were directly applicable only to vehicles operating in the State, but once approved by EPA they could be adopted nationwide. *See* 42 U.S.C. § 7507(1) (authorizing any State to adopt new motor vehicle emissions standards "identical to the California standards for which a waiver has been granted").

While petitioners cite to both *MEMA I* and *Nichols*, they make no effort to distinguish or analyze these cases with regard to the venue question. One reason may be that both cases' reasoning underscores the national significance of EPA's action here. In *MEMA I*, the Court reviewed EPA's decision to waive federal preemption for California regulations limiting the amount of maintenance required by operators' manuals placed in new motor vehicles sold in California. 627 F.2d at 1101. *MEMA I* is suffused with this Court's recognition of California's historical "pioneering efforts" in vehicle emissions technology, and Congress' expectation that California would remain at the cutting edge of national vehicle emission standards innovation. "[T]he advantages of the California exception included the benefits for the Nation to be derived from permitting California to continue its experiments in the field of emissions control benefits[.]" *Id.* at 1109-10. *See also id.* at 1109 (Congress

has simply not been in doubt.

“expressed its intent to occupy the regulatory role over emissions control to the exclusion of all the states all, that is, except California”). It strains credulity to presume that in enacting 42 U.S.C. § 7543, Congress carved out a special role for California to develop pioneering mobile emission standards available for adoption throughout the Nation, on one hand, yet required that EPA’s decisions authorizing such standards be treated as “regionally applicable” actions, reviewed by the Ninth Circuit (and not this Court), on the other.¹⁰

Similarly, in *Motor & Equipment Manufacturers v. Nichols* -- which addressed EPA’s approval of CARB’s regulation of on-board vehicle emissions diagnostic devices (“OBDs”) -- this Court recognized that “[t]he effect of the [CAA] is that new ‘motor vehicles must be either ‘federal cars’ designed to meet EPA’s standards or ‘California cars’ designed to meet California’s standards.’” 142 F.3d at 453. The California OBD regulations in *Nichols* were reviewed against the backdrop of longstanding federal OBD regulations issued by EPA. *Id.* at 453-54 (citing regulations promulgated at 58 Fed. Reg. 9468 (Feb. 19, 1993)). In *this* case, by contrast, there *are no* federal standards for in-use, nonroad diesel engines, *see* 42 U.S.C. § 7547(a)(2), (3), and the *only* NO_x and PM standards available to States seeking to regulate in-use fleets are those represented by CARB’s Fleet Requirements.

¹⁰ It further strains credulity to presume in enacting section 7543, Congress intended for this Court to review *some* CARB authorization approvals by EPA, but not others. The potential for confusion resulting from conflicting reviews by two (footnote continued . . .)

“A state may decline to follow California’s lead; if so, however, the state may not regulate emissions from in-use non-road engines at all.” *ATA*, 600 F.3d at 628.

Particularly given the absence of a corresponding federal standard, the fact that California’s nonroad standards may serve as the template for corresponding standards adopted by other States underscores the national significance of EPA’s action.

This Court previously reviewed an EPA decision authorizing CARB rules under section 7543(e) in *ATA*, 600 F.3d 624; there, the Court affirmed EPA’s decision to authorize a CARB rule regulating emissions from transportation refrigeration units (“TRUs”) in trucks. While the appropriateness of D.C. Circuit review was not questioned in *ATA*, the Court noted that California’s TRU rule – much like CARB’s Fleet Requirements here -- required compliance from “all TRUs carried on vehicles *operating* in California – not just those carried on vehicles *based* in California[.]” *Id.* at 626 (emphasis in original). The factors militating towards D.C. Circuit review in *ATA* are equally present here.

different appellate courts is self-evident.

3. EPA's Off-Road Diesel Decision Is a Nationally-Applicable Action Because California's Fleet Requirements Will Regulate Qualifying Diesel Fleets Both Within and Outside the State.

EPA's Decision is also properly characterized as a nationally-applicable action because CARB's Fleet Requirements will regulate off-road diesel fleets based *both* in California and out of State.

This Court has held that whether an action is “nationally applicable” or “locally or regionally applicable” turns on who is regulated by the action, not by the *de facto* impacts of the regulation. *Natural Res. Def. Council, Inc. v. Thomas*, 838 F.2d 1224, 1249 (D.C. Cir. 1988) (“If the jurisdictional provision turns on the *de facto* scope of the regulation, choice of the correct forum might raise complex factual and line-drawing problems [that] waste time and serve little purpose.”). Other appellate courts similarly agree that under the CAA, the “national applicability” of an EPA action turns on its practical reach, not merely where its effects are felt. *See New York v. EPA*, 133 F.3d 987, 990 (7th Cir. 1998) (whether an EPA action is national, or regional or local, “should depend on the location of the persons or enterprises that the action regulates rather than on where the effects of the action are felt.”); *Texas v. EPA*, No. 10-60961, 2011 WL 710598, at *3 (5th Cir. Feb. 24, 2011); *ATK Launch Sys., Inc. v. EPA*, 651 F.3d 1194, 1197 (10th Cir. 2011).

The plain language of the Fleet Requirements and the administrative record supporting EPA's Decision underscore the nationwide effect of EPA's action. "[A]ll [qualifying] off-road vehicles and engines [fleets] . . . operated within California" are subject to California's Fleet Requirements, regardless of where such fleets are based. JA 503 (Decision docket 0691-0292, at 6) (promulgating Cal. Admin. Code tit. 13, § 2449(c)(20)). Given the classes of fleets most likely affected by the rule – *e.g.*, construction, manufacturing, and landscaping vehicles, *see* JA 788 (Decision docket 0691-0002, attachment A at 1) -- the majority of affected fleets may, in fact, be based either in California or in neighboring States. But "[a]n EPA rule need not span 'from sea to shining sea' to be nationally applicable." *W. Va. Chamber of Commerce v. Browner*, No. 98-1013, 1998 WL 827315, at *7 (4th Cir. Dec. 1, 1998). CARB's regulation "applies equally to all equipment that is operated in the state, regardless of where the fleet itself is located." JA 698-99 (Decision docket 0691-0298, at 122-23). This is the *sine qua non* of a nationally-applicable action, properly reviewable only in the D.C. Circuit. 78 Fed. Reg. at 58,121.¹¹

¹¹ Petitioners assert that both *New York v. EPA* and *ATA* undermine the nationally applicable character of the CARB's Fleet Requirements, *See* Pet'r Br. at 35-37, but in fact they misread both cases. In *New York*, the Seventh Circuit reviewed a NOx emissions limitation exemption that, by its terms, was limited to a cluster of Great Lakes States; the only effects from EPA's action felt beyond these States were air quality effects, something common to "any major [CAA] action by the EPA . . . since air currents do not respect state boundaries." *New York v. EPA*, 133 F.3d at 990. By contrast, the Fleet Requirements apply to any qualifying vehicles operating within California, regardless of where such vehicles are registered or owned. (footnote continued . . .)

4. EPA's Action is Reviewable Only in the D.C. Circuit Because EPA Determined Its Action Had Nationwide Scope or Effect, A Determination That Is Not a Proper Subject for Judicial Review.

Review of EPA's Off-Road Diesel Decision in the D.C. Circuit is also compelled by EPA's published determination that its action would have a nationwide scope or effect. EPA's Decision contained the express finding that the Decision would indirectly "affect not only persons in California, but also entities outside the [S]tate who must comply" with CARB's Fleet Requirements. 78 Fed. Reg. at 58,121. While EPA used the words "national applicability" as opposed to the words "nationwide scope or effect" in describing its action, the slight difference in nomenclature is immaterial. An action that has "national applicability," *per se*, has "nationwide scope or effect." Courts "prefer[] . . . commonsense inquiries over formalism," *United States v. Williams*, 514 U.S. 527, 536 (1995), and favor according statutes their "sensible construction" where possible. *United States v. Granderson*, 511 U.S. 39, 42 (1994). In short, the "nationwide scope or effect" prong in the third

Decision docket 0691-0292, at 6 (promulgating Cal. Admin. Code tit. 13, § 2449(c)(20)). As for *ATA*, petitioners fail to acknowledge that the national applicability of EPA's action there (approving CARB's regulation of TRUs powered by diesel engines) was not challenged. This Court rejected ATA's "weak" argument that CARB's rule violated section 7543(e)'s criteria for approval of a waiver, merely because it applied to out-of-state trucks driving within California's borders. *ATA*, 600 F.3d at 627-28 (citing 42 U.S.C. § 7543(e)(2)(A)(iii)). It did *not* reject the use of this criterion as a basis for classifying EPA's action as "nationally applicable."

sentence of 42 U.S.C. § 7607(b)(1) was satisfied by EPA’s “determin[ation] and “find[ing]” as to the effect of its Decision outside California.

Petitioners suggest that the validity of an EPA “nationwide scope or effect” determination depends on whether a challenged action is demonstrably and “objectively [shown to be] one of nationwide scope or effect.” *See* Pet’r Br. at 24. They maintain that this reading of section 7607(b) is necessary to prevent EPA from using section 7607(b)’s third sentence (“nationwide scope or effect”) to subvert and negate its first (“nationally applicable”). *Id.* This reading of the CAA fundamentally misconstrues the nature of “nationwide scope or effect” findings under the CAA.

By centralizing judicial review of “nationally applicable” actions in the D.C. Circuit, Congress recognized the importance of creating uniform interpretations and applications of nationally-applicable agency actions, especially in the context of technically complex statutes like the CAA. Similarly, and perhaps in recognition that the distinction between categories of actions reviewable under section 7607(b)(1) may be “elusive,”¹² Congress also authorized this Court to review regionally applicable

¹² *Tex. Mun. Power Agency v. EPA*, 89 F.3d at 867 & n.6; *cf. W. Va. Chamber of Commerce v. Browner*, 1998 WL 827315, at *6 (some cases involve clearly nationally applicable or regionally/locally applicable actions, while others fall “in between these two sets of clear cases”); *Sierra Club v. Johnson*, 623 F. Supp. 2d 31, 36 (D.D.C. 2009) (courts “have not set forth a unitary standard” to distinguish nationally and regionally applicable actions).

final actions determined by EPA to have nationwide scope and effect, and Congress intended that EPA's determinations in such cases would be conclusive.¹³

Few cases have involved a review of EPA determinations of “nationwide scope or effect” under 42 U.S.C. § 7607(b). However, these cases support the conclusion that EPA's finding of nationwide scope and effect is conclusive as to the D.C. Circuit's jurisdiction and is not itself subject to judicial review. In *Alcoa, Inc. v. EPA*, No. 04-1189, 2004 WL 2713116, at *1 (D.C. Cir. Nov. 24, 2004) (per curiam), for example, this Court held that it had exclusive jurisdiction over Alcoa's challenge to the ozone designations rule because the EPA Administrator had “unambiguously determined that the [ozone designations rule] has nationwide scope and effect.” *Accord Puerto Rican Cement Co. v. EPA*, 889 F.2d 292, 300 (1st Cir. 1989). Here, as in *Alcoa*, EPA made an explicit finding as to the nationwide impact of its Decision.

Similarly, in *Sierra Club v. Leavitt*, 368 F.3d 1300 (11th Cir. 2004), the Eleventh Circuit observed in dicta that it is for EPA, “not th[e] Court, to judge whether EPA has made a determination of nationwide scope.” *Id.* at 1308 n.12. While *Sierra Club* did not directly address the question of judicial review under section 7607(b)(1), the court's observation further supports EPA's view that where it makes a “nationwide

¹³ By contrast, courts have appropriately examined the putative “national applicability” of challenged EPA actions, for which D.C. Circuit venue does not depend upon a threshold “finding” or “determination” by EPA. *See, e.g., ATK Launch*, 651 F.3d at 1194; *W. Va. Chamber of Commerce v. Browner*, 1998 WL 827315, at *6-7; *Madison Gas & Elec. Co. v. EPA*, 4 F.3d 529 (7th Cir. 1993).

scope” finding, that is conclusive and any “appeals of EPA’s action should be filed in the D.C. Circuit rather than [the] regional Circuit.” *See id.*¹⁴

Indeed, this Court should hold that EPA’s finding that an agency action is of nationwide scope or effect is among the “rare circumstances” where agency action is unreviewable under the APA, 5 U.S.C. § 701(a)(2); *Lincoln v. Vigil*, 508 U.S. 182, 190-91 (1993); *Heckler v. Chaney*, 470 U.S. 821, 830-32 (1985). As the agency responsible for administering the CAA, EPA is “far better equipped” than this Court to determine which of its actions are of nationwide scope and effect. *See Lincoln*, 508 U.S. at 193.

Finally, even if this Court concludes that an EPA finding of nationwide scope and effect is reviewable, EPA’s interpretation of the statute is entitled to significant deference and must be upheld as long as it is reasonable. *Chevron*, 467 U.S. at 842-44. The finding and determination in EPA’s Decision was based on its consistent interpretation of section 7543(e)(2)(B), and represented an analytical approach EPA has applied consistently for decades. Because the CAA provides that when EPA makes a nationwide scope and effect finding review is limited to the D.C. Circuit --

¹⁴ The legislative history of section 7607(b) lends further support to this view. *See* H.R. Rep. No. 95-294, at 324 (1977), *reprinted in* 1977 U.S.C.C.A.N. 1077, 1403 (“if any action of the Administrator is found by him to be based on a determination of nationwide scope or effect . . . then exclusive venue for review is in the U.S. Court of Appeals for the District of Columbia”).

and because EPA made such a finding here -- Petitioners' challenges may only be heard in this Court.

5. Venue Should Not Be Based on the “Nexus” Factors Identified by Petitioners.

Petitioners also offer up five separate “nexus-based” reasons why they believe this case should be transferred to the Ninth Circuit. Pet'r Br. at 30. These arguments are tied not to the national applicability, or scope or effect, of EPA's action, but rather to the convenience or preferences of the petitioners, the “geographic territory covered” by EPA's action, and the familiarity petitioners presume individual judges in the Ninth Circuit will have with the “local conditions and issues” of California. Because these arguments are not tied to the statutory criteria, they ring hollow.

Moreover, even assuming *arguendo* that the Court's venue were still in doubt, this Circuit's longtime familiarity with EPA waiver decisions is *also* a relevant factor to determine where venue should lie. *See Eastern Air Lines, Inc. v. CAB*, 354 F.2d 507, 510 (D.C. Cir. 1965) (“one factor that has considerable weight in the guidance of judicial discretion is the desirability of transfer to a circuit whose judges are familiar with the background of the controversy through review of the same or related proceedings”). Regardless of whether petitioners believe it was wrong to do so, there is no dispute that all previous challenges to EPA's waiver decisions under section 7543 – both for new motor vehicles and nonroad vehicles and engines – have been reviewed in the D.C. Circuit. If any Court is qualified to evaluate the merits of EPA's

Decision (and gauge the distinctions *vel non* between EPA's previous actions and this one for venue purposes), it is this Court.

B. ARTBA's Separate Challenges to This Court's Venue Are Invalid.

ARTBA separately raises several distinct issues it calls "related or subsidiary" to the venue issues raised with California Petitioners. Pet'r Br. at 2-3. None of ARTBA's separate challenges has merit.¹⁵

1. ARTBA Waived Its Opportunity To Challenge This Court's Venue By Filing Its Petition For Review Only In This Court.

As a threshold matter, this Court should reject the separate venue arguments ARTBA presents (issues 2 and 3 in its "related or subsidiary questions") because of its failure to file a petition for review in its preferred forum, the Ninth Circuit.¹⁶

As noted above, both California Petitioners and ARTBA filed timely challenges to EPA's Decision in this Court, but only California Petitioners filed a corresponding petition for review in the Ninth Circuit. ARTBA did not file a Ninth Circuit petition, but instead sought and was granted leave to intervene on California Petitioners' behalf. *See generally supra* at 17-18.

¹⁵ ARTBA's first issue, concerning the reviewability of EPA's findings under 42 U.S.C. § 7607, closely relates to California Petitioners' own venue challenges and has been addressed with them, *supra* at 34-37.

¹⁶ EPA acknowledges that California Petitioners filed petitions in both courts as a protective measure, and does not assert waiver as to them.

ARTBA's decision to file only in this Court undermines its challenge to this Court's venue now. Choice of venue is a personal privilege accorded to a party respecting the "place of suit, which he may assert, or may waive at his election." *Neirbo Co. v. Bethlehem Shipbuilding Corp.*, 308 U.S. 165, 168 (1939). "Being a privilege, it may be lost. It may be lost by failure to assert it seasonably, by formal submission in a cause, or by submission through conduct." *Id.* A party can relinquish its right to object to venue, if it brings suit in a court other than the one authorized by statute. *See, e.g., Olberding v. Illinois Cent. R. Co.*, 346 U.S. 338, 340 (1953); *Adam v. Saenger*, 303 U.S. 59, 67-68 (1938).

Unlike California Petitioners, ARTBA chose this venue alone for its suit. That decision carries consequences. ARTBA did not have to file here at all: under 28 U.S.C. § 1631, the Ninth Circuit was fully authorized to transfer any petition timely filed there to this Court, if warranted. That provision, enacted as part of the Federal Courts Improvement Act of 1982 ("FCIA"), authorizes the transfer of an action from a court without jurisdiction to "any other such court in which the action or appeal could have been brought at the time it was filed," in the interests of justice. 28 U.S.C. § 1631. This Court has held that the authority to transfer applies with full force in the venue context, as well. *See Alexander v. CIR*, 825 F.2d 499, 501 (D.C. Cir. 1987) ("it would be inconsistent with the general purpose of the FCIA and the specific purpose of section 1631 to infer an intent to revoke our inherent power to transfer cases over which we have jurisdiction, but not venue.").

Thus, ARTBA only needed to file a timely petition for review in the Ninth Circuit to ensure that its challenge to EPA's Decision would be heard in the appropriate venue once the dust settled on any dispute over the national applicability of the action. ARTBA's decision to file only here amounts to a "submission through conduct" to this Court's venue, *Neirbo Co. v. Bethlehem Shipbuilding Corp.*, 308 U.S. at 168, and a waiver of ARTBA's venue challenges.

2. Other States May Lawfully Adopt and Implement the California Standards Under 42 U.S.C. § 7543(e)(2)(B).

ARTBA also challenges this Court's venue over these petitions by contesting EPA's interpretation of section 7543's "opt-in" provision applicable to "[a]ny State other than California." 42 U.S.C. § 7543(e)(2)(B). ARTBA specifically asserts that it is impossible for other States to adopt CARB's standards, because the yearly declines in fleet-based emissions required by that rule cannot be lawfully implemented in accordance with subsections 7543(e)(2)(B)(i) and (ii). Pet'r Br. at 37-41. Because it construes CARB's standards to be "legally ineligible" for adoption elsewhere, ARTBA concludes that EPA's Decision is, *per se*, a "regionally-applicable" action. *Id.* at 41. ARTBA is wrong.

First, the very complexity of this purported "venue" argument – one which would lure the Court to address an ancillary legal dispute over other States' hypothetical future actions -- underscores the national implications of EPA's Decision. Whether other States may lawfully adopt CARB's Fleet Requirements –

whether EPA's reading of the plain language of 42 U.S.C. § 7543(e)(2)(B) is correct -- is a question with national (not merely "regional") ramifications. If and when other States attempt to adopt CARB's Fleet Requirements, the "venue" issue ARTBA presents regarding the meaning of section 7543(e)(2)(B) may be joined. Meanwhile, ARTBA's untested reading of section 7543(e)(2)(B) provides no basis to reject this Court's venue or second-guess EPA's determination that its Decision is one having nationwide scope or effect.

Moreover, even on its own terms, ARTBA's interpretation of section 7543(e)(2)(B) is wrong. ARTBA misreads the CAA -- which requires only that States wait "at least 2 years" before their own version of CARBs' standards take effect, *see* 42 U.S.C. § 7543(e)(2)(B)(ii). ARTBA also ignores the fact that section 209(e)(2)(B) allows States to adopt and enforce CARB standards, "*for any period*" provided the standards are identical for the period concerned. *Id.* § 7543(e)(2)(B) (emphasis added). Nothing in the CAA requires States to adopt and enforce CARB's emission standards at the same time (or for the same length of time) as California, as ARTBA implies.

On several occasions States outside California have adopted and enforced CARB motor vehicle emission standards well after the initiation of CARB's own requirements, in accordance with 42 U.S.C. § 7507 (after which section 7543(e)(2)(B) is modeled). One such example is States' implementation of CARB regulations associated with Low-Emission Vehicles ("LEV") between 1992 and 2005, long after

CARB's own LEV regulations were adopted in 1990. *See, e.g.*, N.Y. Comp. Codes R. & Regs. tit. 6, Chapter III, Subchapter A, pt. 218 (New York LEV program, adopted 1992); Mass. Regs Code tit. 310 §§ 7.40, 7.45 (Massachusetts LEV program, adopted 1992); 06-096 Code Me. R. Ch. 127, § 2 & Att. A (Maine LEV program, adopted 1993); Vt. Code R. 16-3-100:5-1101 through 1107 (Vermont LEV program, adopted 1996). *See also Motor Vehicle Mfrs. Ass'n v. N.Y. Dep't of Env'tl. Conservation*, 79 F.3d 1298, 1302 (2d Cir. 1996) (discusses adoption of New York LEV program); *Motor Vehicle Mfrs. Ass'n v. N.Y. Dep't of Env'tl. Conservation*, 17 F.3d 521, 527-28 (2d Cir. 1994) (same); *Amer. Auto. Mfrs. Ass'n v. Comm'r Mass. Dep't of Env'tl. Prot.*, 31 F.3d 18, 21-22 (1st Cir. 1994) (discusses adoption of Massachusetts LEV program).

The practical concerns raised by ARTBA (*see* Pet'r Br. at 38-41) similarly lack merit. When a CARB standard includes a declining annual-average, States adopting the standard simply begin enforcement in accordance with the applicable average set by CARB for that year. CARB's LEV standards, for example, contain fleet average standards for non-methane organic compounds that become incrementally more stringent for several years. *See* Cal. Admin. Code tit. 13 § 1960.1. LEV regulations in other States mirror CARB's in this as in other respects. *See supra*. Under the lead time requirements of section 7543(e)(2)(B), another State could adopt CARB's Fleet Requirements in 2016, *e.g.*, and, after providing the lead time required by the statute, require compliance beginning in 2019, using CARB's 2019 requirements. *See N.Y. Dep't of Env'tl. Conservation*, 17 F.3d at 524-25.

Contrary to ARTBA's claims, there is nothing "cavalier[]" about EPA's use of the LEV standards precedent to illustrate how States' adoption of CARB's Fleet Requirements may work in practice. Pet'r Br. at 39. The "compliance task" challenge illustrated in ARTBA's charts (Pet'r Br. at 40) is likely to be inherent in *any* emissions program outside of California that targets in-use (*i.e.*, non-new) nonroad fleets. Yet these challenges do nothing to undermine the legal validity of CARB's own Fleet Requirements, or the validity of identical standards in any other State that, after waiting "at least 2 years," elects to adopt CARB's standards "for any period" thereafter. The truth is that ARTBA's real grievance lies not with EPA and its authorization of these specific CARB Fleet Requirements, but rather with Congress and its decision to enact 42 U.S.C. §§ 7543(e)(2) and 7543(e)(2)(B) -- authorizing other States to adopt CARB non-new off-road engine and vehicle standards -- at all. In *ATA*, this Court rejected a similar argument, noting that, "ATA's argument is best directed to Congress because the problem it identifies is inherent in the congressional decision to give California the primary role in regulating certain mobile pollution sources." *ATA*, 600 F.3d at 628. A similar verdict is warranted here.

It is ironic, at best, that ARTBA would have this Court find EPA's action to be "regionally-applicable," by resolving a substantive disagreement that is plainly nationwide. Whether other States may adopt CARB's Fleet Requirement is a question with national implications and thus, per force, is one that reinforces the appropriateness of venue in this Court.

3. This Court Should Reject ARTBA's Request to Sever its Challenge Regarding 42 U.S.C. § 7543(e)(2)(B) from the Rest of the Case.

ARTBA's final venue argument relates to its concern that this Court may choose to rule narrowly on the validity of EPA's Decision and, thus, ignore ARTBA's arguments regarding other States' (in)ability to adopt CARB's Requirements under section 7543(e)(2)(B). Pet'r Br. at 41. To address this perceived problem, ARTBA asks this Court (if it declines to transfer the petitions to the Ninth Circuit) to sever ARTBA's "opt-in" challenge from California Petitioners' merits challenge, and transfer ARTBA's petition to the U.S. district court for the District of Columbia, under 28 U.S.C. § 1631. Pet'r Br. at 42. This suggestion warrants only a brief response.

There is no need to sever ARTBA's petition from the rest of this case; ARTBA or its members will have their day in court to challenge any future adoption of CARB's rules by other States, if such a matter becomes ripe. The cases challenging other States' adoption of CARB's LEV regulations, cited above, were all heard in federal district court after CARB's own standards were adopted. The "identity" of these States' standards with those in California and/or the States' adherence to the "2 year lead time" requirement was an issue in each one. *See Motor Vehicle Mfrs. Ass'n v. N.Y. Dep't of Env'tl. Conservation*, 79 F.3d at 1305; and *Motor Vehicle Mfrs. Ass'n v. N.Y. Dep't of Env'tl. Conservation*, 17 F.3d at 531-32; *Amer. Auto.*

Mfrs. Ass'n v. Comm'r Mass. Dep't of Env'tl. Prot., 31 F.3d at 23. “[T]he ultimate legal determination of whether [a State’s standards implementing CARB regulations] are preempted by the CAA is a question of federal preemption law for the courts alone to decide.” *See Assoc. Intern. Auto. Mfrs., Inc. v. Comm'r Mass. Dep't of Env'tl. Prot.*, 208 F.3d 1, 5 (1st Cir. 2000).

ARTBA claims it is not seeking to challenge EPA’s preemption rules relating to States’ adoption of CARB nonroad standards generally; it is *only* challenging such States’ ability to “opt into *these* California standards.” Pet’r Br. at 41 (emphasis added). Yet absent a concrete dispute over a specific state standard’s adherence to federal law, ARTBA’s claim is unripe and, in fact, is nothing more than a request for an advisory opinion which the court lacks authority to decide. *El Paso Natural Gas Co. v. United States*, 750 F.3d 863, 883 (D.C. Cir. 2014); *Full Value Advisors, LLC v. SEC*, 633 F.3d 1101, 1106 (D.C. Cir. 2011). The legal question posed by ARTBA *may* be available for judicial review at some future point, but it is not available for review now. Thus, ARTBA’s suggestion that it needs its “opt-in” challenge severed from the rest of this case in order to litigate its “opt-in” challenge is simply wrong.¹⁷

¹⁷ ARTBA specifically notes that it wishes to “litigate this issue *against* EPA,” Pet’r Br. at 42 (emphasis added), but offers no explanation about why EPA’s presence as a party is needed to make its case. Similarly, ARTBA requests that its “opt-in” challenge be transferred to the district court in Washington, D.C., but (other than the fact that the D.C. Circuit reviews that court’s rulings) it offers no explanation of why that court would be the appropriate forum for its challenge. *Id.*

III. EPA REASONABLY ASSESSED WHETHER CALIFORNIA NEEDS ITS PROGRAM TO MEET COMPELLING AND EXTRAORDINARY CONDITIONS BY CONSIDERING THE PROGRAM AS A WHOLE

CAA section 209(e)(2)(A)(ii), 42 U.S.C. § 7543(e)(2)(A)(ii), states that EPA may not grant California a waiver of preemption if EPA finds that California “does not need such California standards to meet compelling and extraordinary conditions.” In deciding to approve CARB’s Fleet Requirements, EPA considered whether California needed its mobile source emission standards program as a whole, a practice that has been followed – with a single exception¹⁸ -- for over 40 years. 78 Fed. Reg. at 58,094, 58,102. EPA’s interpretation is consistent with the statutory language, congressional intent as demonstrated by the legislative history, and prior decisions by this Court.

¹⁸ In 2005, California submitted a CAA waiver request to EPA in accordance with section 7543(b)(1), to regulate emissions of greenhouse gases from new motor vehicles. EPA originally denied California’s request in a *Federal Register* notice dated March 6, 2008. 73 Fed. Reg. 12,156 (Mar. 6, 2008). In reaching that decision, EPA’s then-Administrator departed from EPA’s historic practice of examining whether California needed its own motor vehicle program as a whole and, instead, considered whether California needed its greenhouse gas regulations considered by themselves. *Id.* at 12,159-61. At that time, EPA’s Administrator determined that California did not need its standards to meet compelling and extraordinary conditions, as required by section 7543(b)(1)(B). *Id.* at 12,159. EPA subsequently determined that its initial denial of California’s waiver request was “based on an inappropriate interpretation of the waiver provision” and approved that request on July 8, 2009. 74 Fed. Reg. 32,744, 32,746 (July 8, 2009).

Nothing in 42 U.S.C. § 7543(e)(2) requires EPA to consider whether California has a need for any *particular* aspect of its mobile source standards program, rather than assessing whether California has a need for its nonroad program *as a whole*. The statute provides in relevant part:

The Administrator shall, after notice and opportunity for public hearing, authorize California to adopt and enforce standards and other requirements relating to the control of emissions from [nonroad] vehicles or engines if California determines that California *standards will be, in the aggregate*, at least as protective of public health and welfare as applicable Federal standards. No such authorization shall be granted if the Administrator finds that . . . (ii) California does not need *such California standards* to meet compelling and extraordinary conditions

42 U.S.C. § 7543(e)(2)(A)(ii) (emphasis added). The most natural reading of the statutory language is that the italicized phrase “such California standards” in section 7543(e)(2)(A)(ii) refers back to the italicized word “standards” in the initial text of section 7543(e)(2)(A) – that is, the “California standards” which that State has determined will be, “in the aggregate,” as protective as federal standards. In other words, the phrase “such California standards” refers to California’s nonroad program as a whole. At a minimum, EPA’s interpretation is reasonable in light of the purpose of the statute and its legislative history; accordingly, it must be upheld. *See Chevron*, 467 U.S. at 843.

As noted above, Congress enacted section 7543(e)’s precursor, section 7543(b), in recognition of both California’s unique air pollution problems and its cutting-edge role in the development of techniques for automobile air pollution

controls. The report of the Senate committee that created section 7543(b) noted that, “Senator Murphy convinced the committee that California’s unique problems *and pioneering efforts* justified a waiver of the preemption section to the State of California.” S. Rep. No. 90-403 at 33 (1967) (emphasis added). Congress enacted section 7543(b) to enable California to continue to improve on “its already excellent *program*” of emission control, *id.* (emphasis added), and the law’s legislative history contains nothing to suggest “that the waiver provision was designed to permit California to adopt only a portion of such a program. *Id.* (cited in *MEMA I*, 627 F.2d at 1109-10).

EPA’s practice of reviewing California’s nonroad program as a whole is consistent with Congress’ intent that the State be allowed to continue its role to experiment with new methods for emissions control. EPA’s Decision approving CARB’s Fleet Requirements is a good example of the benefits of this approach. No other jurisdiction, Federal or State, has developed and implemented standards for the control of emissions from in-use diesel fleets to date. California’s innovative efforts may ultimately facilitate the authorization and development of national standards to address the same problem.

A. Petitioners’ Interpretation of 42 U.S.C. § 7543(e)(2)(A)’s Plain Language and Legislative History Is Flawed.

Petitioners purport to draw different conclusions from the plain language and legislative history of section 7543. Regarding the former, they argue, *inter alia*, that a

“standard is a standard,” not a “program” – a term “not used even once” in the section, *see* Pet’r Br. at 44 (citing *Engine Mfrs. Ass’n v. S. Coast Air Quality Mgmt. Dist.*, 541 U.S. 246, 254 (2004), 52 – and urge that section 7543(e)’s protectiveness test be read as a predicate requirement imposed on California that is “independent of and does not modify the language in the separate sentence establishing the needs test” imposed on EPA. Pet’r Br. at 53. Petitioners argue that “[t]he two different tests were intended to address entirely different issues[.]” *Id.* at 54. Regarding the latter, petitioners depict the evolution of section 7543(e) and its precursors – from the enactment of section 208 in 1967 through the enactment and amendment of section 209 in 1970, 1977 and 1990 – as one that shifted the burden away from California, to “justify” specific standards that were “more stringent” than federal standards (circa 1967 and 1970), and onto EPA, to deny any “particular” standard found not to meet “compelling and extraordinary conditions” (circa 1977 and 1990). *See generally id. at 47-55.* Petitioners are wrong on both counts.

1. Petitioners’ Statutory Interpretation Is Wrong.

First, Petitioners’ focus on the absence of the word “program” in section 7543 disregards, or ignores, EPA’s use of that term. As EPA noted at the time of its Decision, “EPA’s use of the word ‘program’ in this context is simply meant to describe the *group of standards* applicable to the engines and vehicles in question under California’s regulatory program The ‘program’ in this context is merely the standards being considered together.” 78 Fed. Reg. at 58,100 (emphasis in original).

Despite their urging that section 7543(e)(2)(A)(ii) requires EPA to examine California's "need" for a *particular*, singular "standard" in any one case, they cannot deny that section 7543(e)(2)(A)(ii) refers to "such California standards" in the plural – *i.e.*, the *same* California "standards" EPA examines in its "arbitrary and capricious" evaluation in subsection 7543(e)(2)(A)(i), and the *same* California "standards" to which California applies the protectiveness test in the first place. Nothing in the statutory text supports the distinction petitioners make or specifies that EPA must consider *only* California's need for the *particular* changes being made at any one time.

Petitioners' second statutory argument, *i.e.*, that the need to evaluate California's standards "in the aggregate" is one imposed only on California, not EPA, Pet'r Br. at 49, 54, is similarly flawed. Once more, the language "such California standards" in section 7543(e)(2)(A)(ii) refers back to the same standards for which the protectiveness determination is made "in the aggregate," thus implicating the nonroad program as a whole. Moreover, as even petitioners admit, *see* Pet'r Br. at 48, the "in the aggregate" language was added to the CAA in 1977, to address a specific issue that arose in the context of the protectiveness test, *i.e.*, the problem that control measures for one pollutant might potentially exacerbate the emissions of another (in particular, the possibility that control measures for NO_x would increase emissions of carbon monoxide).

California was eager to establish oxides of nitrogen standards considerably higher than applicable federal standards, but technological developments posed the possibility that emission control devices could

not be constructed to meet both the high California oxides of nitrogen standard and the high federal carbon monoxide standard Hence, Congress amended the waiver provision [in 1977] to require only that the California standards in the aggregate were at least as protective of public health and welfare as applicable federal standards. *This permits the State to maintain a high standard for oxides of nitrogen but a standard for carbon monoxide somewhat lower than the federal standard.*

MEMA I, 627 F.2d at 1110 n.32 (emphasis added). The burden imposed on EPA under section 7543(e)(2)(A)(i) and (ii) is to disapprove California's standards where it finds the State was arbitrary or capricious in making its protectiveness determination (section 7543(e)(2)(A)(i)) or, alternatively, to disapprove California's standards where EPA itself finds that "such . . . standards," in the plural, are not needed to meet compelling and extraordinary conditions (section 7543(e)(2)(A)(ii)). The same collection of standards is in play in both contexts. As EPA noted in its Decision:

[T]he creation of the 'in the aggregate' test for protectiveness is supportive of the argument that EPA is not to look at the need for each individual standard. If EPA were required [to do so], any individual standard that was less stringent than a federal standard might be considered unnecessary. This would obviate the rationale for looking at the protectiveness of California's standards 'in the aggregate' under the first criterion – effectively requiring EPA to give back in the second criterion what Congress explicitly gave California in its revision to the first criterion.

78 Fed. Reg. at 58,101. Nothing in the plain language of section 7543(e) supports the notion that section 7543(e)(2) requires "EPA to give back in the second criterion what Congress explicitly gave California" in the first.

2. Petitioners Misconstrue the Legislative History of 42 U.S.C. § 7543(e).

To the extent that the language of section 7543(e) is ambiguous, EPA's interpretation is, at a minimum, one that is reasonable and entitled to deference under *Chevron*, 467 U.S. at 837. EPA's interpretation is certainly not "unambiguously precluded" by the language of the statute. *See Riverkeeper*, 556 U.S. at 218 (agency's view "governs if it is a reasonable interpretation of the statute – not necessarily the only possible interpretation, nor even the interpretation deemed *most* reasonable by the courts") (emphasis in original). This is borne out by the very legislative history upon which petitioners rely.

First, petitioners' emphasis on the CAA's original California waiver provision, former section 208, Pub. L. No. 90-148, 81 Stat. 485 (Nov. 21, 1967), directly undermines their point. Pet'r Br. at 45-46. Former section 208's text created a universal federal preemption of "any [single] State standard" related to new vehicle emissions, but it also provided an exception for California unless EPA determined that California did not need standards – "a term that is both general and plural," *see* 78 Fed. Reg. at 58,100 -- that were "*more* stringent" than those required by federal law. *MEMA I*, 627 F.2d at 1109 (citing S. Rep. No. 403, 90th Cong., 1st Sess. 81 (1967)) (emphasis added). The parties may disagree about whether any other subsequent changes to the waiver provision had substantive effects, but it is beyond dispute that a change

from “more stringent” to “at least as protective” reflects a loosening of the burden imposed on California to obtain and retain a waiver under federal law.

Second, although petitioners cite to the addition of the clause, “in the aggregate” in 1977, Pet’r Br. at 48-49, they overlook the substantive importance of that phrase. While the legislative history of this addition is sparse, what is certain is that the clause, “in the aggregate,” removed any ambiguity as to the universe of standards against which a waiver request would be judged. If it was unclear in former section 208 whether California needed to show that *all* its standards were required to be “more stringent” than federal standards in order to obtain a waiver for “any” one, the 1977 amendments erased any doubt. As EPA noted in its Decision, the “in the aggregate” clause “requires EPA to waive preemption of individual California standards that, in and of themselves, might not be considered needed to meet compelling and extraordinary circumstances, but are part of California’s overall approach to reducing vehicle emissions[.]” 78 Fed. Reg. at 58,100. As this Court explained, “Congress had an opportunity to restrict the waiver provision in making the 1977 amendments, and it instead elected to expand California’s flexibility to adopt a complete program of motor vehicle emissions control.” *MEMA I*, 627 F.2d at 1110. While petitioners discuss the 1977 CAA amendments at length, Pet’r Br. at 47-53, they ignore this Court’s understanding of that law altogether. The omission is telling.

In *ATA*, this Court recognized that 42 U.S.C. § 7543(e)(2)(A)(ii) “gives California (and in turn EPA) a good deal of flexibility in assessing California’s regulatory needs.” 600 F.3d at 627. In furtherance of that flexibility, EPA considered CARB’s Fleet Requirements by correctly applying section 7543’s criteria.

B. EPA’s Interpretation Of Section 7543(e)(2)(A) is Consistent with Congressional Intent and Does Not Yield Absurd Results.

Petitioners further claim that EPA’s interpretation of section 7543(e)(2)(A)(ii), which focuses on California’s nonroad program as a whole rather than on individual emissions standards, “leads to absurd results.” Pet’r Br. at 56. They note, correctly, that in the event California no longer needs its own nonroad program “as a whole,” the CAA requires EPA to “make a finding to that effect and deny waiver applications” under section 7543(e)(2). The “absurd result” flowing from this outcome, they warn, is that when this happens “all previous waivers would no longer be ‘needed’” either and would have to be dismantled, in contravention of congressional intent. *Id.* On this point, petitioners are flat wrong.

EPA addressed petitioners’ “absurd results” argument in its Decision. There it acknowledged that air quality conditions in California “may one day improve such that it no longer has the need for a separate nonroad program” at all. 78 Fed. Reg. at 58,102. The CAA is designed to make such an outcome “possible” and, in that event – *e.g.*, if EPA found that California’s standards were no longer needed “to meet

compelling and extraordinary conditions” – the bases for disapproval under section 7543(e)(2)(A)(ii) would be triggered and a waiver request would be denied.

This does *not* mean that waivers previously granted to the State would be jeopardized, however. To the contrary, “the basis for previously waived or authorized standards would remain valid unless EPA determined that the compelling and extraordinary conditions would not exist even without those standards in place.” 78 Fed. Reg. at 58,102. The CAA *requires* this result through section 175A, 42 U.S.C. § 7505a, which directs States (like California) currently in nonattainment for NAAQS to prepare “maintenance plans” to add to their SIPs if and when they submit a request to be redesignated as in “attainment.” 42 U.S.C. § 7505a(a). Maintenance plans are intended to ensure that States’ SIPs continue to “implement all measures with respect to the control” of the relevant air pollutants “which were contained in the [SIP] for the area before redesignation” occurred. *Id.* § 7505a(d). In this case, this means that all CARB standards previously authorized before “compelling and extraordinary conditions” ended would remain in effect. “Considered as a whole, the [CAA] reflects Congress’s intent that air quality should be improved until safe and never allowed to retreat thereafter. Even if EPA set requirements that proved too stringent and unnecessary to protect public health, *EPA was forbidden from releasing states from these burdens.*” *S. Coast Air Quality Mgmt. Dist. v. EPA*, 472 F.3d 882, 900 (D.C. Cir. 2006) (emphasis added). Thus, petitioners’ warnings of dire scenarios are misplaced. EPA’s reading of section 7543(e) is fully consistent with congressional

intent.

IV. EPA'S DECISION SHOULD BE UPHOLD REGARDLESS OF HOW THE CRITERIA OF SECTION 7543 ARE ANALYZED.

For the reasons discussed in Section III above, petitioners' challenge to EPA's Decision should be rejected. Even if petitioners' interpretation of section 7543 were correct, however, EPA's authorization of California's nonroad standards was reasonable and must be affirmed.

EPA analyzed the criterion of whether "California does not need such California standards to meet a compelling and extraordinary need" under both EPA's longstanding approach to waivers under section 7543 and the approach suggested by petitioners. EPA included an extensive discussion of all of the evidence supporting California's need for CARB's Fleet Requirements, and discussed the requirement that opponents of the waiver bear the burden of demonstrating that California is not entitled to the waiver. 78 Fed. Reg. at 58,092. Following its thorough review, EPA concluded that "even if EPA were to use the alternative approach outlined above—that of reviewing the need for the Fleet Requirements per se to meet compelling and extraordinary conditions in California—EPA finds that the opponents of the authorization have not met their burden of proof. Therefore, even if EPA were to use this alternative approach, we could not deny the authorization on this basis." *Id.* at 58,110.

While they disagree with this finding, petitioners have presented no

substantive argument that EPA was arbitrary or capricious in reaching its conclusion.

For all their complaints about the serious “deficiencies” attached to EPA’s preferred interpretation of section 7543, Pet’r Br. at 59, petitioners do *not* challenge the merits of EPA’s Decision at all, including failing to challenge EPA’s determination that the same result would have been reached applying petitioners’ preferred test. *See* 78 Fed. Reg. at 58,103 and discussion, *infra* at 58-60.¹⁹ Accordingly, EPA’s waiver should be upheld, even were the Court to conclude that petitioners’ interpretation was the only permissible interpretation of section 7543.

EPA based its Decision upon its traditional review of whether California needs its nonroad program as a whole to meet compelling and extraordinary conditions in the State. 78 Fed. Reg. at 58,102. However, EPA *also* went further and analyzed CARB’s Fleet Requirements through the lens proposed by petitioners, *i.e.*, one “based on a review of whether the Fleet Requirements are *per se* needed to meet compelling and extraordinary conditions” in the State. *Id.* at 58,103.²⁰ EPA stressed that it received no comments as to how such an evaluation of “need” should be performed – *e.g.*, “how to weigh or balance evidence and [yet] provide CARB with the requisite

¹⁹ Because petitioners have failed to contest the merits of EPA’s waiver in their opening brief, they are barred from doing so in their reply. *See Coal River Energy, LLC v. Jewell*, 751 F.3d 659, 663 n. 3 (D.C. Cir. 2014).

²⁰ Indeed, during the public comment on EPA’s Decision, counsel for California Petitioners acknowledged that there was “*substantial evidence in the record*” to evaluate CARB’s Fleet Requirements using the methodology petitioners prefer. *See* Decision (footnote continued . . .)

policy deference” it is owed. *Id.* at 58,103. It also emphasized that the Fleet Requirements’ opponents had failed to satisfy their burden of proof “to overcome CARB’s stated need for its Fleet Requirements,” *id.* All the same, EPA addressed California’s current and projected future air quality – and the potential health effects from diesel exhaust (particularly as to particulate matter) -- at length. *Id.* at 58,103-10.²¹ EPA ultimately concluded that “even if [it] were to use the alternative approach,” *i.e.*, the one proposed by petitioners, opponents of the authorization

docket 0691-0304, at 1-10 (JA 420 (emphasis added)).

²¹ EPA’s analysis included a detailed consideration of comments from petitioners, and others, regarding California’s need for its Fleet Requirements and the national and California-specific data on emissions from off-road diesel equipment. *See* 78 Fed. Reg. at 58,103 & n. 84 (citing Decision docket 0691-0303) (Associated General Contractors of America) (JA 385); *id.* (citing Decision docket 0691-0317) (Construction Industry Air Quality Coalition) (JA 450); and *id.* (citing Decision docket 0691-0309) (California Construction Trucking Association) (JA 457). *See also* Decision docket 0691-0302 & 0691-0320 (Pacific Legal Foundation) (JA 392, 491); Decision docket 0691-0315 (Delta Construction) (JA 396); Decision docket 0691-0316 (United Contractors) (JA 421); Decision docket 0691-0317 (Construction Industry Air Quality Coalition) (JA 450); Decision docket 0691-0310 (ARTBA) (JA 470). The question of whether California needs the specific Fleet Requirements submitted by CARB was raised through these comments in depth. EPA also reviewed comments addressing the allegedly unique properties of particulate matter emissions in California, *see* 78 Fed. Reg. at 58,105 & n. 94 (citing Decision docket 0691-0307) (Dr. Matthew Malkan) (JA 424); *id.* & n.97 (citing Decision docket 0691-0308) (Dr. James Enstrom) (JA 427); *id.* & n.96 (citing Decision docket 0691-0313) (Dr. Robert F. Phalen) (JA 476), as well as comments suggesting that California’s environmental laws (*i.e.*, its Environmental Quality Act) made CARB’s Fleet Requirements unnecessary altogether. *See* 78 Fed. Reg. at 58,103 (citing Decision docket 0691-0305) (Altfillisch Contractors) (JA 473). EPA also reviewed CARB’s initial and supplemental comments on these issues. *See generally* 78 Fed. Reg. 58,103 & n. 86-87; *id.* at 58,105 & n. 101-07 (citing Decision docket 0691-0318) (CARB written comments) (JA 429); *id.* (citing Decision docket 0691-0319) (CARB (footnote continued . . .)

failed to show that California did not need its CARB's Fleet Requirements to meet "compelling and extraordinary conditions." *Id.* at 58,110. Petitioners offer nothing to undercut that conclusion.²²

CONCLUSION

As demonstrated above, the petitions for review should be dismissed.

Respectfully submitted,

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²² Given EPA's thorough consideration of petitioners' comments (*supra* at 58-60 & n.21) and its probing evaluation of the need for California's nonroad standards even under petitioners' alternative test, *id.*, the Court need not address petitioners' final arguments regarding vacatur. *See* Pet'r Br. at 58-60.

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CERTIFICATE OF COMPLIANCE WITH WORD LIMITATION

Pursuant to Federal Rule of Appellate Procedure 32(a)(7)(C), I hereby certify that the foregoing Brief of Respondent EPA contains 13,592 words as counted by the Microsoft Office Word 2013 word processing system, and thus complies with the applicable word limitation.

/s/ Joshua M. Levin
Joshua M. Levin

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing Brief of Respondents was served, this 16th day of July, 2015, on all registered counsel, through the Court's CM/ECF system:

/s/ Joshua M. Levin
Joshua M. Levin

ORAL ARGUMENT NOT YET SCHEDULED

No. 13-1283
(Consolidated with 13-1287)

IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

DALTON TRUCKING, INC., et al.,

Petitioners,

v.

ENVIRONMENTAL PROTECTION AGENCY, et al.,

Respondents.

On Petition for Review from the Environmental Protection Agency
EPA-78 Fed. Reg. 58090

**FINAL JOINT REPLY BRIEF OF PETITIONERS DALTON
TRUCKING, INC., ET AL., AND AMERICAN ROAD &
TRANSPORTATION BUILDERS ASSOCIATION**

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GLOSSARY

A P A	A d m i n i s t r a t i v e P r o c e d u r e A c t
A R T B A	A m e r i c a n R o a d & T r a n s p o r t a t i o n B u i l d e r s A s s o c i a t i o n
C A A	C l e a n A i r A c t
C A R B	C a l i f o r n i a A i r R e s o u r c e s B o a r d
C O	C a r b o n M o n o x i d e
E P A	E n v i r o n m e n t a l P r o t e c t i o n A g e n c y
L E V	L o w - E m i s s i o n V e h i c l e
P M _{2.5}	P a r t i c u l a t e M a t t e r o f 2.5 m i c r o n s o r l e s s i n d i a m e t e r
N O x	O x i d e s o f N i t r o g e n

INTRODUCTION

Petitioners in Nos. 13-1283 (collectively, the “California Petitioners”) and 13-1287 (American Road & Transportation Builders Association or “ARTBA”) file this reply to the briefs of respondents Environmental Protection Agency and its Administrator (collectively, “EPA”) and intervenor California Air Resources Board (“CARB”). For the reasons set forth here and in their opening brief, petitioners respectfully submit that this Court must transfer these cases to the Ninth Circuit for lack of venue. If it finds venue proper here, this Court should vacate EPA’s waiver, which EPA based on an impermissible interpretation of Clean Air Act (“CAA”) waiver standards under § 209(e)(2), 42 U.S.C. § 7543(e)(2). Lastly, if it affirms the waiver without resolving ARTBA’s argument that other states cannot adopt these California standards, this Court should transfer ARTBA’s challenge to the United States District Court for the District of Columbia.

There is no dispute among the parties regarding nine central facts. First, the California emissions standards at issue here apply only to nonroad diesel vehicles that operate in California, and as to those vehicles, the standards apply only when the vehicles actually operate in California. Second, the geographic territory covered by EPA’s grant of the waiver application is exclusively California. Third, CARB—the waiver applicant—has jurisdiction only over vehicle emissions that occur within California. Fourth, all of the California Petitioners and their officers and employees

are located exclusively in California. Fifth, EPA did not make a finding that its waiver had “nationwide scope and effect;” rather, EPA found that it was of “national applicability.” Sixth, no one can predict when other states may adopt the California emissions standards at issue here. Seventh, § 209(e)(2)(A) requires satisfaction of both the “protectiveness” and “needs” tests in that subsection for EPA to waive preemption. *See* 42 U.S.C. § 7543(e)(2)(A). Eighth, only two air basins in California are in nonattainment for the federal PM_{2.5} and the 8-hour ozone standards. And, ninth, judicial review of agency action is presumed unless there is clear evidence of Congressional intent to prohibit judicial review, or if there is no law for a court to apply. These undisputed facts are conclusive and favor Plaintiffs.

SUMMARY OF ARGUMENT

Under § 307(b)(1), venue is proper here only for nationally applicable actions and for actions that EPA finds to have a nationwide scope or effect. 42 U.S.C. § 7607(b)(1); Pet’rs’ Br. at 18. Here, EPA made a national-applicability finding, not the statutorily contemplated nationwide-scope-or-effect finding, which deprives EPA’s finding of any relevance. Moreover, the record is devoid of any relevant facts found, as well as the rational connections between those facts and EPA’s finding. Further, EPA cannot dispute that both the CARB standards and EPA’s waiver apply only in California. There could be no clearer example of an EPA action that is “locally or regionally applicable” under § 307(b)(1).

With respect to other states' ability to adopt CARB's standards, the Ninth Circuit's deference to this Court on venue puts any national implications of the venue determination in this Court. EPA's analogizing other states' adopting the California Low-Emission Vehicle ("LEV") program to this in-use fleet average is misplaced because the LEV program's declining fleet average merely modified the ratio at which manufacturers sold the same types of new vehicles already sold in California. Here, the declining average directly affects each existing vehicle in a fleet, and denying the CARB's leadtime for California fleets changes the rule.

On the merits, EPA's waiver failed to make the CAA-required showing that California needs these standards—not its whole vehicular-emission program—to address compelling and extraordinary conditions. Under the statutory text and history, as well as this Court's prior holdings, EPA's contrary position is specious. Similarly, because these rules could have been localized to the only two air basins in California in nonattainment of the relevant ozone and particulate-matter standards, neither EPA nor CARB could make the required "needs" showing.

On the justiciability of ARTBA's claims, Article III does not require a case or controversy to argue venue in an existing case or controversy, and ARTBA does not need to name individual members because CARB's standard injures the entire construction industry, which is confirmed by prior ARTBA-EPA-CARB litigation. As

to ripeness, EPA's positions injure ARTBA members now in negotiations with their states, which would satisfy Article III if that were necessary to argue venue.

ARGUMENT

EPA argues for deference under *Chevron U.S.A., Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837 (1984). But that case is inapposite:

First, always, is the question whether Congress has directly spoken to the precise question at issue. If the intent of Congress is clear, that is the end of the matter; for the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress.

Id. at 842-43. *Chevron* deference applies only when EPA's position flows from a "permissible construction of the statute," *id.* at 843, which is not the case here.

Chevron does not allow agencies to rewrite statutes in the guise of interpreting them: "for *Chevron* deference to apply, [an administrative] agency must have received congressional authority to determine the particular matter at issue in the particular manner adopted." *City of Arlington, Tex. v. F.C.C.*, 133 S. Ct. 1863, 1874 (2013); *see also Food & Drug Admin. v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120, 125 (2000) (agencies must implement statutes as written, bearing in mind the specific language and structure of the statute at issue). As the Supreme Court recently stated:

Even under *Chevron*'s deferential framework, agencies must operate within the bounds of reasonable interpretation. And reasonable statutory interpretation must account for both the specific context in which . . . language is used and the broader context of the statute as a whole. A

statutory provision that may seem ambiguous in isolation is often clarified by the remainder of the statutory scheme . . . because only one of the permissible meanings produces a substantive effect that is compatible with the rest of the law. Thus, an agency interpretation that is inconsisten[t] with the design and structure of the statute as a whole, does not merit deference.

Utility Air Regulatory Group v. EPA, 134 S. Ct. 2427, 2442 (2014) (citations and internal quotations omitted). As explained below, EPA’s interpretations on both venue and the merits simply are not “within the bounds of reasonable interpretation.”

Id.

I

THIS COURT IS NOT THE PROPER VENUE FOR THIS ACTION

Because EPA’s national-applicability finding is wrong, venue is improper here. Accordingly, this Court should transfer these cases to the Ninth Circuit or, alternatively for ARTBA, to district court. 28 U.S.C. §§ 1391(e), 1631.

A. Neither § 307(b)(1)’s First Sentence Nor Its Third Sentence Apply

Under § 307(b)(1)’s first and third sentences, venue is proper in this Court for review both of nationally applicable EPA actions and of EPA actions with nationwide scope or effect, with the latter requiring an EPA finding. *See* Pet’rs’ Br. at 23. The second sentence unambiguously provides that EPA action “which is locally or regionally applicable may be filed only in the United States Court of Appeals for the

appropriate circuit.” 42 U.S.C. § 7607(b)(1) (emphasis added). Here, EPA did not make the nationwide-scope-and-effect finding required to set venue under section 307(b)(1)’s third sentence but instead found national applicability based expressly and exclusively on “entities outside [California] who must comply with California’s requirements”:

My decisions will indirectly affect not only persons in California, but also entities outside the state who must comply with California’s requirements. For this reason, I determine and find that this is a final action of national applicability for purposes of section 307(b)(1) of the Act.

78 Fed. Reg. 58090, 58121 (Sept. 20, 2013) (JA-1794) (emphasis added). This vague statement might reference either non-California fleets operating in California or non-California fleets in states that adopt the California standards. Indeed, EPA now claims both rationales. EPA Br. at 27-28, 32-33. Administrative law does not allow such vagueness.

Instead, agencies must articulate a rational connection between the facts found and the choices made, *Motor Vehicle Mfrs. Ass’n v. State Farm Mut. Auto Ins. Co.*, 463 U.S. 29, 43 (1983), on “the basis articulated by the agency itself” in the record. *Id.* at 50; *SEC v. Chenery Corp.*, 332 U.S. 194, 196 (1947). Where, as here, agencies fail abjectly to cite such facts and articulate such rational connections, courts cannot uphold agency action. Thus, this Court cannot credit EPA for work it has not shown but instead must limit EPA to the specific facts found and connections drawn.

On the issue of whether the waiver decision is either of “national applicability” or “nationwide scope or effect,” the undisputed facts are these: (1) the California nonroad diesel emissions standards apply only to nonroad vehicles that operate in California, and as to those vehicles, only during the time that they actually operate in California; (2) no one can predict when other states may adopt those California emissions standards; (3) the actual geographic territory covered by EPA’s grant of the waiver application is located exclusively in California; and (4), CARB, which applied for the waiver, has jurisdiction only over vehicle emissions that occur within the California. Given these undisputed facts, EPA at the very least should have articulated the bases upon which it determined that its waiver was sufficiently “national” to implicate § 307(b)(1)’s first or third sentences over the regional applicability of that section’s second sentence.

On the basis of its national-applicability finding, EPA argues the instant challenge may be heard only in this Court. The argument is without merit because EPA’s finding is not the finding mandated by § 307(b)(1)’s third sentence. That sentence states, if EPA determines in a published finding that its action is of “nationwide scope or effect,” venue lies in this Court for challenges to that action. EPA did not make that finding. Even EPA acknowledges this fact. EPA Br. at 34. Because EPA did not make the statutorily mandated finding, § 307(b)(1)’s third sentence is not even implicated; consequently, the waiver is “locally or regionally

applicable” under the second sentence of that section. Accordingly, this case should be decided by the Ninth Circuit.

But even if it allowed EPA to substitute national-applicability findings for statutorily mandated nationwide-scope-or-effect findings, this Court still would need to transfer this case to the Ninth Circuit because EPA did not specifically identify the facts found or expressly define the determination made, much less articulate a rational connection between those facts and that determination. Given California’s nexus with this EPA action, the waiver decision is “locally or regionally applicable” within the meaning of § 307(b)(1)’s second sentence. Therefore, the case should be heard in the Ninth Circuit.

1. § 307(b)(1)’s First and Third Sentences Pose Different Tests

Although EPA argues § 307(b)(1)’s first and third sentences pose the same test, EPA Br. at 34, the two sentences obviously address different things. The first addresses agency action that itself *applies* nationally, whereas the third addresses actions that *do not apply nationally*—and thus would fall under § 307(b)(1)’s second sentence—those actions which nonetheless have nationwide scope or effect, even though they lack national applicability.

Statutory language is important. *Moskal v. U.S.*, 498 U.S. 103, 109 (1990) (courts must give effect to every clause and word of a statute). Congress prescribed

precisely the finding that EPA must make in order to give effect to § 307(b)(1)'s third sentence. In context, § 307(b)(1)'s first sentence provides that “nationally applicable” final actions must be heard only in this Court. The second sentence flows from the first and provides that locally or regionally applicable actions must be heard only in the court of appeals with jurisdiction over the specific locality or region affected by the agency action. The third sentence modifies the second sentence, but not the first sentence, by stating in the introductory clause: “*Notwithstanding the preceding sentence. . . .*” That third sentence trumps the second sentence, but only when EPA makes a specific finding that an action is of “nationwide scope and effect.” The fact that Congress chose the formulation “nationwide scope and effect” in the third sentence and did not repeat the term “national applicability” used in the first sentence is not accidental. “[W]here Congress includes particular language in one section of a statute but omits it in another section of the same Act, it is generally presumed that Congress acts intentionally and purposely in the disparate inclusion or exclusion.” *Rodriguez v. U.S.*, 480 U.S. 522, 525 (1987) (quoting *Russello v. U.S.*, 464 U.S. 16, 23 (1983)).

Although EPA asserts “[an] action of ‘national applicability,’ *per se*, has ‘nationwide scope and effect,’” EPA Br. at 34 (emphasis in original), the Supreme Court would disagree with the general notion that different terms in a statute mean the same thing. *See Russello*, 464 U.S. at 23 (inclusion and exclusion of a specific term

in different parts of statute can significantly affect its meaning, scope, and applicability); *see also*, *North Haven Bd. of Ed. v. Bell*, 456 U.S. 512, 521 (1982) (Congress could easily have substituted different language in Title IX “if it had wished to restrict [its] scope.”).

Indeed, the two terms do not describe identical things, and that is why § 307(b)(1)’s first and third sentences use different terms. Context is important. An agency action that is “nationally applicable” applies to the nation (first sentence), while an agency action that is “locally or regionally applicable” does not (second sentence). The third sentence modifies the second sentence by providing that, even where an agency action is only “locally or regionally applicable,” if that action has “nationwide scope and effect,” i.e., if the action itself does not *apply* to the nation but *impacts* the nation, challenges to *that* action should be decided by this Court. Thus, the terms “nationally applicable” and “nationwide scope and effect” are not synonymous. By failing to make the finding specifically mandated by Congress in § 307(b)(1)’s third sentence, EPA failed to meet the threshold condition set forth in that sentence.¹

¹ The legislative history supports the textual argument. *See* H.R. Rep. No. 95-294 at 324 (1977), *reprinted in* 1977 U.S.C.C.A.N. 1077, 1403 (“if any action of the Administrator is found by him to be based on a determination of *nationwide scope and effect* . . . then exclusive venue for review is in the U.S. Court of Appeals for the District of Columbia Circuit.”) (emphasis added).

2. EPA's Sentence-Three Findings Are Reviewable *De Novo*

Apparently recognizing that it made an incorrect finding, EPA asserts that any finding EPA makes under § 307(b)(1)'s third sentence is immune from judicial review. EPA Br. at 37. That assertion is not only meritless but also largely irrelevant: the CAA does not even authorize national-applicability findings. Even if nationwide-scope-and-effect findings were immune from judicial review (they are not), that immunity would not protect national-applicability findings like the one here.

Simply put, the CAA does not authorize or even invite nationwide-applicability findings. EPA's citation to *Alcoa, Inc. v. EPA*, No. 04-1189, 2004 WL 2713116, at *1 (D.C. Cir. Nov. 24, 2004) is inapposite. There, the Court observed that EPA had "unambiguously determined that the [ozone standard] has nationwide scope and effect." *Id.* Indeed, EPA's Federal Register notice for the ozone standard published *precisely that* determination: "[EPA] . . . is determining that the final designations are of *nationwide scope and effect* for purposes of section 307(b)(1)." 69 Fed. Reg. 23858, 23875 (April 30, 2004) (emphasis added) (JA-135). By contrast, here EPA did not make the statutorily mandated determination. Thus, EPA is wrong when it asserts that it made the same § 307(b)(1) determination that it made in *Alcoa*. See EPA Br. at 36. For the same reasons, EPA's citations to *Puerto Rican Cement Company v. EPA*, 889 F.2d 292, 300 (1st Cir. 1989), and *Sierra Club v. Leavitt*, 368 F.3d 1300, 1308 n.12 (11th Cir. 2004), are to no avail. No court has ever held that a finding of

“national applicability” is tantamount to a finding of “nationwide scope and effect” required by § 307(b)(1)’s third sentence.

In any event, administrative action comes with a strong presumption of reviewability, which can be rebutted only by a clear showing of congressional intent to shield agency action from judicial review. *See* Pet’rs’ Br. at 19 (quoting *Abbott Labs v. Gardner*, 387 U.S. 136, 141 (1967)). Moreover, judicial review is available (1) except where a statute explicitly prohibits it, or (2) when it is “committed to agency discretion by law” under 5 U.S.C. § 701(a)(2) because there is “no law to apply.” *Citizens to Preserve Overton Park v. Volpe*, 401 U.S. 402, 410 (1971). In the context of the “no law to apply” standard, it must be “unmistakable” that there is no meaningful standard against which to judge the agency action. *Sierra Club v. Peterson*, 705 F.2d 1475, 1479 (9th Cir. 1983). Because EPA’s determinations under section 307(b)(1)’s third sentence are not explicitly precluded from judicial review, review is available for such decisions unless it is unmistakable that there is no meaningful standard against which to review such decisions.

The Supreme Court’s decision in *Heckler v. Cheney*, cited but misread by EPA, sheds light on the issue. EPA cites *Heckler* for the proposition that the instant case provides one of the “rare circumstances” where an agency action is unreviewable, but they offer no argument as to why this is such a rare circumstance. EPA Br. at 37.

Moreover, EPA ignores one of the most important contributions of *Heckler* on the question of reviewability:

[W]hen an agency refuses to act it generally does not exercise its *coercive* power over an individual's liberty or property rights, and thus does not infringe upon areas that courts are often called upon to protect [but] when an agency *does* act to enforce, that action itself provides a focus for judicial review, inasmuch as the agency must have exercised its power in some manner. The action at least can be reviewed to determine whether the agency exceeded its statutory powers.

Heckler v. Cheney, 470 U.S. 821, 830 (1985). Here, EPA *acted* when it granted California's waiver request. Under *Heckler*, that action "can be reviewed to determine whether the agency exceeded its statutory powers." *Id.*

EPA's citation to *Lincoln v. Vigil*, 508 U.S. 182, 190-91 (1993), is misplaced. In that case, an agency reallocated its resources to assist handicapped Native American children, where it had discretion as to how to use lump sum funds provided by Congress. *Id.* at 193-94. By contrast, here, Congress specified the finding that § 307(b)(1)'s third sentence requires. Congress delegated no discretion for EPA's alternate finding.

EPA also argues that its finding under § 307(b)(1)'s third sentence is entitled to *Chevron* deference. Here, the agency misconstrued the statute by equating a national-applicability finding with a nationwide-scope-or-effect finding. As indicated in Section I.A.1, *supra*, the two terms are not synonymous. Likewise, an agency interpretation of a statute is impermissible if it "is not one that Congress would have

sanctioned.” *Chevron*, 467 U.S. at 845. Both the text of § 307(b)(1)’s third sentence and the CAA’s legislative history show that it is impermissible for EPA on its own motion to substitute a national-applicability finding for the statutorily required nationwide-scope-or-effect finding. This would amount to rewriting the CAA, something beyond EPA’s authority. *Brown & Williamson*, 529 U.S. at 125.

3. EPA’s Waiver Is Not Nationally Applicable

By their terms, these CARB standards *apply* only in California, 13 Cal. Code Regs. § 2449(b)(1), which indeed is common to all EPA waivers, notwithstanding the ability of other states to adopt California standards. *Ford Motor Co. v. Env’tl. Prot. Agency*, 606 F.2d 1293, 1302 (D.C. Cir. 1979). EPA cannot rebut this clear fact.²

EPA discusses several cases addressed by petitioners, but it misreads those cases. The “face” of a regulation determines national applicability. *Natural Res. Def. Council, Inc. v. Thomas*, 838 F.2d 1224, 1249 (D.C. Cir. 1988); *ATK Launch Sys., Inc. v. EPA*, 651 F.3d 1194, 1197 (10th Cir. 2011) (“[T]he Clean Air Act provision makes clear that [courts] must analyze whether the regulation itself is nationally applicable . . .”). Here, the face of the waiver shows that it applies directly only to CARB and indirectly only to those who operate nonroad vehicles in California. EPA ignores those facts.

² ARTBA argues that other states cannot adopt these CARB standards, *see* Section I.B, *infra*, which likely requires this Court to address the other-state issue.

4. EPA Has Not Established Nationwide Scope or Effect

Assuming *arguendo* that this Court could substitute a nationwide-scope-or-effect finding for EPA's incorrect national-applicability finding, the modified EPA finding still would be at odds with the record. It is undisputed that CARB's standards and EPA's waiver apply only to California and that no nonroad vehicles that operate outside of California need meet the California standards. As CARB explained at a public hearing regarding the waiver application, CARB's rules apply only to equipment operated in California, Pet'rs' Br. at 25, which belies any finding of "national applicability." *See also id.* at 31 (quoting 13 Cal. Code Regs. § 2449(b)(1)). It is also undisputed that the challenged EPA action did not find any facts relevant to its nationwide-scope-or-effect finding, much less draw rational connections between those facts and EPA's finding; EPA has not given this Court a basis on which to affirm EPA's finding.

a. In-California Operation of Non-California Fleets Is Not Nationwide

EPA supports its nationwide-scope-or-effect finding by arguing that non-California-based fleet operators must comply with CARB standards when their fleets operate in California. EPA Br. at 33. But only vehicles operating in California must comply with California's standards. *See Madison Gas & Electric Co. v. EPA*, 4 F.3d 529, 530 (7th Cir. 1993) (challenge to allocation of emissions allowances at

local facility is issue of local applicability); *Texas Mun. Power Agency v. EPA*, 89 F.3d 858, 866-67 (D.C. Cir. 1996) (dispute over emissions in Ohio “no more ‘national’ than the one at issue in *Madison Gas*”). Moreover, EPA does not even try to rebut petitioners’ arguments that California’s border states all are in the Ninth Circuit—thus supporting regional applicability—and that the record lacks facts for faraway fleets winning California work and being shipped to California. *See* Pet’rs’ Br. at 36-37. EPA’s *post hoc* rationale is baseless.

b. Non-California Operations in Opt-In States Do Not Support EPA’s Sentence-Three Finding

EPA also supports its nationwide-scope-or-effect finding by arguing that the CARB standards will apply outside California when other states adopt CARB’s standards. EPA Br. at 27. First, EPA’s Federal Register notice neither finds facts nor draws rational connections between any facts and the nationwide-scope-or-effect finding. Second, assuming *arguendo* that EPA’s vague finding alluded to other states’ adopting these CARB standards, no state has done so yet, and EPA does not provide any facts on when other states may adopt CARB’s standards. Third, ARTBA argues that other states cannot adopt *these* CARB standards, see Section I.B, *infra*, which (if true) would negate a nationwide-scope-or-effect finding, if EPA had made one.

B. Other States Cannot Adopt These CARB Standards

EPA raises various objections to ARTBA's arguments that other states cannot opt into these particular CARB standards under § 209(e)(2)(B)'s criteria, such as:

(1) the national implications of ARTBA's argument implies venue in this Court, (2) ARTBA impermissibly challenges EPA's interpretations and the CAA itself, and (3) the history of California's LEV program implies that other states can adopt declining emission standards for in-use fleets. EPA Br. at 41-44. ARTBA submits that each EPA objection is inapposite.

First, given the Ninth Circuit's referring the venue question here, this Court will decide the only "national" issue even arguably involved here (namely, whether other states may adopt these CARB standards). Significantly, that issue goes to venue, not to the merits question (namely, whether EPA properly waived preemption for CARB enforcing these standards in California). This Court must decide the venue issue and, if venue is lacking, defer to the Ninth Circuit on the merits. *Am. Rd. & Transp. Builders Ass'n v. EPA*, 705 F.3d 453, 455-56 (D.C. Cir. 2013) ("*ARTBA III*").

Second, it is EPA—not ARTBA—that seeks to amend the CAA to fit in-use retrofit standards, something that was not "envision[ed]" in 1994. 59 Fed. Reg. 36969, 36974 (July 20, 1994). In-use retrofits differ fundamentally from new-vehicle standards, and it is unsurprising that regulatory outcomes would differ as well. Specifically, Congress required *both* identity and a two-year lead time. Other

states cannot adopt declining fleet-average standards already underway in California with two year's lead time and simultaneously be identical, at least not for fleet-average standards premised on gradual annual-adoption rates. It is no answer that ARBTA's argument is "likely to be inherent in *any* emissions program outside of California that targets in-use . . . fleets." EPA Br. at 44 (EPA's emphasis). If ARTBA is right, other states cannot adopt these California standards until Congress amends § 209(e).

Third, EPA does not dispute that its long list of LEV-related citations all concern manufacturers selling northeasterners the same four types of cars sold in California. Pet'rs' Br. at 39. EPA insists that it is not cavalier to argue the equivalence of requiring non-California fleets to meet CARB's 2019 standards in the *first year* of regulation, when California fleets had five years to attain that level of fleetwide retrofit. EPA Br. at 43-44. Obviously, EPA simply has no idea how to manage fleets.

While it might be easy to require that all new hires be bilingual, it would be another thing entirely to require bringing an existing workforce up to that standard. If a hypothetical "employee-retrofit" rule phased in gradually like CARB's standards, then forcing additional workforces to jump five years into the adoption curve would obviously differ from the shallower adoption curve faced by workforces initially subject to the rule. Pet'rs' Br. at 39-40. Significantly, CARB premised the feasibility of its standards on the gradual adoption curve, *id.*, and the CAA requires lead time and

identity. 42 U.S.C. § 7543(e)(2)(B)(i)-(ii). EPA simply wishes the statute read differently.

C. If It Can Resolve These Petitions Without Resolving ARTBA's Other-State Claims, This Court Should Transfer ARTBA's Claims to the District Court

If this Court retains these cases and decides the lawfulness of EPA's waiver, without also resolving ARTBA's other-states arguments, the district court would have statutory subject-matter jurisdiction under 28 U.S.C. § 1331 because the CAA's special statutory review would not displace district-court review. Pet'rs' Br. at 42. ARTBA raises transfer under 28 U.S.C. § 1631 as a fallback position to ensure that *a court* can hear ARTBA's claims if *this Court* will not. In the event that this Court retains these cases, however, ARTBA respectfully submits that this Court not only should but must reach ARTBA's other-state arguments for two reasons.

First, as explained in Sections I.A.3-I.A.4, *supra*, the ability of other states to adopt these CARB standards goes directly to at least some of the bases on which EPA now deems venue proper here. If other states cannot adopt these standards, the standards are not themselves nationally applicable, and other states' adoption cannot provide a nationwide scope or effect.

Second, while EPA's sentence-three finding is opaque, EPA now bases its finding in part on other states' ability to adopt these CARB standards. EPA Br. at 27. When EPA waivers address non-California usage of CARB standards, this Court has

reached the merits of industry-EPA disputes over those issues. *Ford*, 606 F.2d at 1299. ARTBA respectfully submits that this Court should do so here, even though the issue goes only to venue.

In any event, EPA's proffered alternate remedy—suing each opt-in state—is an inadequate remedy. First, a multiplicity of suits would irreparably harm ARTBA in its own right. *Idaho v. Coeur d'Alene Tribe of Idaho*, 521 U.S. 261, 273-74 (1997); *Reed Enterprises v. Corcoran*, 354 F.2d 519, 523 (D.C. Cir. 1965). Second, none of those suits would provide relief *against EPA*, which provides or regulates the states' need to provide emission reductions in the first place. As such, relief against EPA—whether here or in the district court—barring the crediting of emission reductions from other states' adoption of these California standards would redress construction-industry injuries by removing these California standards from the list of acceptable control measures for future state emission-reduction needs. Third, a later-arising statutory action would not displace an equity action that has arisen now. *Am. Life Ins. Co. v. Stewart*, 300 U.S. 203, 215 (1937). For these reasons, the district court would have jurisdiction for ARTBA's dispute with EPA if this Court does not.

D. ARTBA Did Not “Waive” Objections To Venue by Filing in This Court

EPA argues ARTBA waived objections to venue by petitioning only this Court, in contrast to the California Petitioners who petitioned both here and in the Ninth Circuit. EPA Br. at 39-40.³ EPA’s argument is both factually and legally flawed.

Factually, ARTBA petitioned this Court for review protectively, hoping to challenge EPA’s nationally applicable preemption rules as applied to these CARB standards, but this Court held that § 307(b)(1) lacks jurisdiction for such challenges, and the Supreme Court denied review. *ARTBA III*, 705 F.3d at 457, *cert. denied* 134 S. Ct. 985 (2014). ARTBA’s response to this Court’s case-initiating order dated November 18, 2013, changed ARTBA’s focus to protecting non-California members, which easily meets the “seasonable-challenge” test applicable to venue.

Legally, EPA misunderstands what the Constitution allows vis-à-vis what the applicable rules and § 307(b)(1) provide as to venue. The authorities that EPA cites for waiver merely hold that Due Process would not prohibit a rule waiving plaintiffs’ objections to venue for permissible cross-claims, *Adam v. Saenger*, 303 U.S. 59, 67-68 (1938), which even those authorities acknowledge “has nothing whatever to do with . . . rights” under statutes or rules—separate from the Constitution—that address

³ EPA does not argue that the California Petitioners waived objections to venue. *Id.*

venue. *Olberding v. Illinois Cent. R. Co.*, 346 U.S. 338, 341 (1953).⁴ Here, there is no venue-waiver rule analogous to the *Adam* rule, and neither EPA nor this Court can retroactively change the rules on venue under § 307(b)(1) without a rulemaking. *Hollingsworth v. Perry*, 130 S. Ct. 705, 710-11 (2010) (courts); *Georgetown Univ. Hosp. v. Bowen*, 821 F.2d 750, 758-60, (D.C. Cir. 1987), *aff'd*, 488 U.S. 204, 215-16 (1988) (agencies). Instead, like defendants and respondents, plaintiffs and petitioners can challenge venue, *Manley v. Engram*, 755 F.2d 1463, 1469-70 (11th Cir. 1985); *Am. Standard, Inc. v. Bendix Corp.*, 487 F. Supp. 254, 260 (W.D. Mo. 1980) (collecting authorities), provided that they do so “seasonably.” *Neirbo Co. v. Bethlehem Shipbuilding Corp.*, 308 U.S. 165, 168 (1939). Respondents do not argue that ARTBA raised venue unseasonably and so have waived that issue.⁵

II

EPA USED THE WRONG STANDARD IN GRANTING CALIFORNIA’S WAIVER APPLICATION

EPA and CARB argue that *Chevron* deference should be afforded to EPA’s interpretation of the CAA’s waiver provisions. They are wrong.

⁴ Insofar as it concerned a defendant’s venue challenge, *Olberding* is *dicta* on the question of plaintiffs’ waiving venue. *Id.* at 340.

⁵ EPA’s suggestion that issues raised in ARTBA’s case-initiating documents trigger the *Neirbo* submission-by-conduct test (*e.g.*, seeking to contest venue after entry of a default judgment, *id.*) is frivolous.

All parties agree the CAA generally preempts state regulation of vehicular emissions, while § 209(e) provides limited authority for EPA to authorize California to adopt standards for nonroad engines and vehicles that differ from the federal standards. That limited authority is conditioned on specific findings that EPA must make in order to authorize California standards that differ from the federal ones.

At issue here is the statutory requirement that “[n]o such authorization shall be granted if [EPA] finds that . . . California does not need such California standards to meet compelling and extraordinary conditions.” 42 U.S.C. § 7543(e)(2)(A)(ii). It is significant that California must apply for waivers from federal preemption on a case-by-case basis whenever it proposes to add a new state standard for vehicle emissions. *Motor & Equip. Mfrs. Ass’n v. Environmental Protection Agency*, 627 F.2d 1095, 1111 (D.C. Cir. 1979); *Engine Mfrs. Ass’n v. U.S. EPA*, 88 F.3d 1075 (D.C. Cir. 1996). And it is significant that the Act requires EPA not to grant any California waiver application unless California makes a showing that it has “compelling and extraordinary conditions” necessitating the particular standards for which waiver is sought. *See* 42 U.S.C. § 7543(e)(2)(A)(ii). Such is the statutory context of the California waiver provision at issue here. *See Robinson v. Shell Oil Co.*, 519 U.S. 337, 341 (1997) (“specific context in which [statutory] language is used, and the broader context of the statute as a whole” must be taken into account when interpreting a statutory provision).

As set forth in more detail in the Petitioners' Opening Brief, the term "such California standards" does not refer to the entire California mobile source emissions program, as the term "program" is not used even once in § 209(e), while the term "in the aggregate" appears only once in the section and, when it does, it refers only to the "protectiveness" test added to the CAA as part of the 1977 amendments. Pet'rs' Br. at 42-56. EPA and CARB argue the term "in the aggregate" applies to both the protectiveness test and the needs test, but the statutory text does not support such an argument. Thus, the term "in the aggregate" appears only in the sentence addressing the protectiveness standard:

[T]he Administrator shall . . . authorize California to adopt and enforce standards and other requirements . . . if California determines that California standards will be, *in the aggregate*, at least as protective of public health and welfare as applicable Federal standards.

42 U.S.C. § 7543(e)(2)(A) (emphasis added). Notably, that sentence authorizes *California* to make the protectiveness determination, and actually *requires* EPA to authorize California to adopt and enforce the state standards if California makes *that* protectiveness determination, "in the aggregate." By contrast, the needs test appears in an entirely different, subsequent sentence, embedded in a clause that is prefaced by proscriptive language:

No such authorization shall be granted if the Administrator finds that

...

(ii) California does not need such California standards to meet compelling and extraordinary conditions.

42 U.S.C. § 7543(e)(2)(A)(ii). The “in the aggregate” language appearing in the sentence establishing the protectiveness test is independent of and does not modify the language in the separate sentence establishing the needs test. This follows from the doctrine of last antecedent. Under that doctrine, “a limiting clause or phrase . . . should ordinarily be read as modifying only the noun or phrase that it immediately follows” and not phrases that are more remote. *Barnhart v. Thomas*, 540 U.S. 20, 26 (2003). Here, the term “in the aggregate” applies only to the protectiveness test because the “in the aggregate” language modifies only the immediately following phrase “at least as protective of public health and welfare as applicable federal standards.” The subsequent sentence, which addresses the separate needs test conspicuously omits that term “in the aggregate.” *See U.S. v. Pritchett*, 470 F.2d 455, 459 (1972) (applying doctrine of last antecedent); *see also Rodriguez*, 480 U.S. at 525 (where language included in one subsection of a statute but excluded in another, “it is generally presumed that Congress acts intentionally and purposely in the disparate inclusion or exclusion.”). Accordingly, using the doctrine of last antecedent, the “in the aggregate” language does not apply to the “remote” needs test but only to the

“nearby” protectiveness test. There is no ambiguity on that score. “If a court, *employing traditional tools of statutory construction*, ascertains that Congress had an intention on the precise question at issue, that intention is the law and must be given effect.” *Chevron*, 467 U.S. at 843 n.9 (emphasis added).

This result is confirmed by the fact that the language in the sentence establishing the protectiveness test affirmatively *mandates* that EPA approve the waiver application if California makes the requisite protectiveness finding, while the language in the sentence establishing the needs test expressly *prohibits* EPA from granting a waiver application unless EPA makes the requisite needs finding. Thus, the trigger for the protectiveness test is just the opposite from the trigger for the needs test thereby demonstrating that Congress intended the tests to be distinct from each other.

In fact, the protectiveness test is drafted to broaden the likelihood of granting a waiver, while the needs test is drafted to narrow the likelihood of granting a waiver. That is because Congress engaged in a legislative trade-off in the 1977 CAA amendments. Any particular California standard that was less stringent than its corresponding federal standard could be approved if all the California standards “in the aggregate” were at least as stringent as all the federal standards “in the aggregate.” On the other hand, Congress prohibited EPA from approving any specific standard if California did not have a need for that standard based upon “extraordinary and

compelling conditions” in the state. The two different tests were intended to address different issues, and Congress gave greater authority to EPA to approve waivers under the protectiveness test, but lesser authority to approve waivers under the separate needs test.

The line drawn by Congress is eminently sensible. § 209(e)(2)(A) gives California discretion to propose a portfolio of standards that collectively maximizes overall “protectiveness,” an aim that is entirely compatible with requiring EPA to confirm that each component of that portfolio is actually needed, as required by § 209(e)(2)(A)(ii). This provides California with leeway to enact and enforce a mix of emissions standards that furthers its interests, while ensuring that EPA protects the national interest in the mobility of vehicles against California standards that are not actually needed to deal with compelling and extraordinary conditions in the state. *See Brown & Williamson*, 529 U.S. at 125 (statutes must be implemented as written, bearing in mind the specific language, structure, and purposes of the statute as a whole).

Thus, the statutory text, its context, the structure of the statutory scheme, and the canons of statutory construction all point to the conclusion that the needs test under § 209(e)(2)(A)(ii) requires EPA to determine on a case-by-case basis whether California has a compelling and extraordinary need for the particular standard for

which it is applying. There is no ambiguity on that issue. Accordingly, under *Chevron*, that is the “end of the matter.” 467 U.S. at 842 (1984).

Nevertheless, EPA and CARB argue the use of the plural term “California standards” necessarily implies the needs test applies not to California’s need for the specific standards for which waiver from federal preemption is sought but to California’s need to have its own mobile source program as a whole. The weight of the statutory textual and structural evidence, as well as the rules of construction, shows that EPA and CARB are wrong. First, the standards applicable to most vehicles involve a standard for multiple pollutants (*e.g.*, CO and NO_x, PM_{2.5} and NO_x, etc.), so the use of the plural has no special significance here. *See* 1 U.S.C. § 1 (“words importing the plural include the singular [i]n determining the meaning of any Act of Congress, unless the context indicates otherwise”). Second, this Court already has held the 1977 amendments’ in-the-aggregate test applies only to the standards applicable to each new class of regulated vehicles, not to the entirety of California’s vehicular-emission program, *Ford*, 606 F.2d at 1300-02, otherwise any new California standard could exceed federal levels based on the cumulative stringency of past California standards vis-à-vis past federal standards. Third, to the extent there is any ambiguity in the CAA on the content of the needs test, the legislative history resolves the ambiguity in favor of the California Petitioners, for the reasons set forth in detail in their joint opening brief. *See* Pet’rs’ Br. at 44-52.

Moreover, the agency is not entitled to *Chevron* deference in connection with its interpretation of any ambiguity that may appear in § 209(e)(2)(A)(ii). Here, EPA has not been given congressional authority to substitute the statutory term “standards” with the term “program.” *See City of Arlington*, 133 S. Ct. at 1874. Indeed, EPA is foreclosed from rewriting the statute in that way or any other way. *See Brown & Williamson*, 529 U.S. at 125. Thus, no deference need be given to EPA’s interpretation of § 209(e)(2)(A)(ii). The statutory language itself, as well as the legislative history, shows that the agency’s interpretation is impermissible and “not in accordance with law.” *See* 5 U.S.C. § 706.⁶

⁶ CARB argues EPA’s interpretation should be given deference because it has been consistently applied by EPA over the years. CARB Br. at 15-17. But that is not true. California submitted a waiver request to regulate greenhouse gases from new motor vehicles in 2005, under the Bush Administration. EPA rejected the request on the ground that California did not need that particular emission standard. 73 Fed. Reg. 12156, 12159 (Mar. 6, 2008). Subsequently, under the Obama Administration, EPA reversed itself and approved the waiver request using the “program as a whole” test. Thus, EPA’s interpretation has not been uniform. EPA itself acknowledges these facts, although CARB does not. EPA Br. at 47. Surely no deference should be given to an EPA interpretation simply because it is the *current* interpretation, which is subject to change, depending upon the Administration that happens to occupy the White House at any particular point in time.

III

CALIFORNIA DOES NOT NEED THE NONROAD DIESEL STANDARDS TO ADDRESS “COMPELLING AND EXTRAORDINARY CONDITIONS” IN THE STATE

EPA argues that, even if the California Petitioners accurately interpret § 209(e)(2)(A)(ii), this Court should sustain EPA’s waiver decision because California has a compelling and extraordinary need for the nonroad diesel emissions standards. EPA Br. at 57-59. The argument is without merit.

It is undisputed that there are only two areas in California that are in nonattainment, namely, the South Coast Air Basin and the San Joaquin Valley Air Basin:

The South Coast Air Basin and the San Joaquin Valley Air Basin are in nonattainment for both PM_{2.5} and the 8 hour ozone standard. Significant reductions in NO_x emissions are needed to attain the standards because NO_x leads to formation in the atmosphere of both ozone and PM_{2.5}. Diesel PM emissions reductions are also needed because diesel PM contributes to ambient concentrations of PM_{2.5}. The South Coast and San Joaquin Valley air basins are both required to be in attainment with the PM_{2.5} standard by 2014. The San Joaquin Valley and South Coast Air basins are required to be in attainment of the 8 hour ozone standard by 2023.

78 Fed. Reg. at 58098-58099. CARB agrees that those are the only two nonattainment areas in California. CARB Br. at 3. Referring solely to the San Joaquin Valley and South Coast Air Basins, EPA notes that

it would be necessary only to examine whether the identified ‘compelling and extraordinary conditions’ in California are giving rise to an *air quality* problem that CARB seeks to address with the Fleet Requirements. . . . EPA believes that to the extent that a review of the need for the Fleet Requirements (as opposed to CARB’s nonroad program) is required, that CARB has reasonably demonstrated such need *due to its obligation to comply with federal law*.

78 Fed. Reg. at 58104 (JA-1777) (emphasis added).

The “air quality problem,” *i.e.*, nonattainment of federal ambient air quality standards, applies only to the two identified air basins and not to any other parts of the state. Even under EPA’s bare-bones approach, at most there may be a “compelling and extraordinary” need for the nonroad diesel standards in the San Joaquin Valley and South Coast Air Basins but not in the remainder of the state. Accordingly, EPA’s grant of a *statewide* waiver is not supported by the record and is, therefore, impermissible.

EPA has admitted it has not developed any other criteria by which to determine whether California needs the nonroad diesel standards: [I]n light of the lack of criteria by which to judge such need . . . even if EPA were to apply the alternative interpretation proposed by commenters, the agency would be unable to make an affirmative finding under section 209(e)(2)(A)(ii). 78 Fed. Reg. at 58103. (JA-1776). Thus, the only reason EPA gave to support its approval of the statewide waiver is that two air basins in the state have not attained certain national ambient air quality standards. Consequently, there has not been a showing that California has a

compelling and extraordinary need for the statewide standards. That is fatal to the waiver. *Motor Vehicle Mfrs. Ass'n*, 463 U.S. at 43 (unless agency can articulate a rational connection between the facts found and choices made, the agency action should be vacated).

IV

ARTBA'S CLAIMS ARE JUSTICIABLE

EPA argues ARTBA lacks standing for relief regarding other states' adoption of California standards because ARTBA fails to identify any members. EPA Br. at 25. While constitutional subject-matter jurisdiction may be relevant to transferring ARTBA's other-state claims to the district court,⁷ petitioners do not need separate standing to argue § 307(b)(1) venue issues if they have standing on the merits. ARTBA not only has standing in this Court (Joseph Decl. ¶ 6 (JA-1811)) but also could rely on the California Petitioners' standing (Pet'rs' Br. at 17-18). Indeed, EPA's contrary position on the other-state question injures ARTBA's non-California members *now* in their bargaining position vis-à-vis their states, Joseph Decl. ¶¶ 8-13 (JA-1811-1814), which provides ARTBA with standing and a ripe controversy on the other-state issues. *Clinton v. New York*, 524 U.S. 417, 433 & n.22 (1998) (finding

⁷ If this Court retains and decides these petitions without reaching ARTBA's issues, Fed. R. App. P. 27(a)(2)(B)(i) would allow submitting affidavits on standing and ripeness in the district-court case, separate from the acknowledged case or controversy here.

third-party injury in the denial of a statutory bargaining benefit, without proof of obtaining the ultimate bargain); *Sierra Club v. EPA*, 129 F.3d 137, 139 (D.C. Cir. 1997) (“no doubt” that affected public has standing to challenge EPA policies concerning transportation districts whose *future* actions may *someday* expose that public to statutory harm); *Pub. Citizen v. U.S. Dep’t of Justice*, 491 U.S. 440, 451 (1989) (“appellants *might* gain significant relief if they prevail in their suit [and their] *potential gains* are undoubtedly sufficient to give them standing”) (emphasis added). Alternatively, denying a party’s chosen forum is itself cognizable injury-in-fact, *Int’l Primate Prot. League v. Adm’rs of Tulane Educ. Fund*, 500 U.S. 72, 77 (1991), for which ARTBA has standing. Moreover, if this Court must decide the other-state-adoption issue as part of resolving EPA’s venue-related arguments, that other-state question is properly before this Court. In short, nothing in Article III prevents ARTBA from raising the other-states arguments here.

Finally, EPA’s claim that ARTBA needed to identify members is not only wrong, but *preclusively* wrong. Article III does not require associations to identify members when membership itself establishes injury (*i.e.*, when agency action affects an entire group or industry). *Summers v. Earth Island Inst.*, 555 U.S. 488, 498-99 (2009). Indeed, the same issue was litigated by the same parties in 2009, Brief for Intervenor California Air Resources Bd., *et al.*, at 10-11, *Am. Rd. & Transp. Builders Ass’n v. EPA*, 588 F.3d 1109 (D.C. Cir. 2009) (“*ARTBA II*”) (08-1381), and this Court

held that ARTBA had standing. *ARTBA II*, 588 F.3d at 1111-12. Not naming members does not defeat ARTBA's standing.

CONCLUSION

This Court should transfer this action to the Ninth Circuit or, alternatively as to ARTBA, to the U.S. District Court for the District of Columbia. If it retains the case, this Court should vacate EPA's grant of the waiver application.

Dated: July 16, 2015

Respectfully submitted,

LAW OFFICE OF
LAWRENCE J. JOSEPH

PACIFIC LEGAL FOUNDATION
M. REED HOPPER
THEODORE HADZI-ANTICH

s/LAWRENCE J. JOSEPH
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& Transportation Builders Ass'n*

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Dalton Trucking, Inc., et al.*

CERTIFICATE OF COMPLIANCE WITH RULE 32(a)
CERTIFICATE OF COMPLIANCE WITH
TYPE-VOLUME LIMITATION, TYPEFACE
REQUIREMENTS, AND TYPE STYLE REQUIREMENTS.

1. This JOINT REPLY BRIEF OF PETITIONERS DALTON TRUCKING, INC., ET AL., AND AMERICAN ROAD & TRANSPORTATION BUILDERS ASSOCIATION complies with the type-volume limitation of Fed. R. App. P. 32(a)(7)(B) because:

 T It contains 7,997 words excluding the parts of the brief exempted by Fed. R. App. P. 32(a)(7)(b)(iii), or

 It uses a monospaced typeface and contains _____ lines of text, excluding the parts of the brief exempted by Fed. R. App. P. 32(a)(7)(B)(iii).

2. This JOINT REPLY BRIEF OF PETITIONERS DALTON TRUCKING, INC., ET AL., AND AMERICAN ROAD & TRANSPORTATION BUILDERS ASSOCIATION complies with the typeface requirements of Fed. R. App. P. 32(a)(5) and the type style requirements of Fed. R. App. P. 32(a)(6) because:

 T It has been prepared in a proportionally spaced typeface using WordPerfect X5 in font style Times New Roman and font size 14, or

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DATED: July 16, 2015.

s/M. REED HOPPER

*Attorney for Petitioners,
Dalton Trucking, Inc., et al.*

CERTIFICATE OF SERVICE

I hereby certify that on July 16, 2015, I electronically filed the foregoing with the Clerk of the Court for the United States Court of Appeals for the D. C. Circuit by using the appellate CM/ECF system.

I certify that all participants in the case are registered CM/ECF users and that service will be accomplished by the appellate CM/ECF system.

s/M. REED HOPPER
M. REED HOPPER

To: McCabe, Janet[McCabe.Janet@epa.gov]
Cc: Stewart, Lori[Stewart.Lori@epa.gov]
From: McCoy, Britney
Sent: Fri 11/6/2015 10:12:46 PM
Subject: Weekend Reading - November 6, 2015
Exceptional Events NPRM PreambleRule 11-4-15.docx
Q3 Wildfire Guidance Draft 11-04-15.docx
Lakeview Petition Response Letter and Enclosure 11-2-15.docx
Petition - Cover Letter.pdf
Petition To Redesignate.pdf
FR Notice 11062015rdln.docx

Janet,

I've attached the following documents for your review:

- 1. Exceptional Events**
- 2. Wildfire Guidance (Ex. Events)**
- 3. MATS Considering Costs - RLSO of your comments, along with OMB**
- 4. Denial to Redesignate Lakeview, OR as Nonattainment for PM2.5 NAAQS**

Have a great weekend.

Britney

**BEFORE THE ADMINISTRATOR OF THE
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

**PETITION FOR RULEMAKING TO REDESIGNATE LAKEVIEW, OREGON AS
NONATTAINMENT FOR THE PARTICULATE MATTER (PM_{2.5}) NATIONAL
AMBIENT AIR QUALITY STANDARDS**

September 15, 2014

I. Introduction and Summary of Rulemaking Request

High levels of fine particulate matter (PM_{2.5}) are a persistent problem in Lakeview, Oregon. According to air quality data, Lakeview, Oregon has failed and continues to fail to meet the 2006 24-hour PM_{2.5} National Ambient Air Quality Standards (“NAAQS”). The 2011-2013 PM_{2.5} 24-hour design value concentrations for the Lakeview area have reached levels among the worst in the nation (5th) due to poorly controlled industrial and residential PM_{2.5} emissions.¹

The Northwest Environmental Defense Center, WildEarth Guardians, Oregon Wild, Beyond Toxics, Save Our Rural Oregon, Save America’s Forests, Our Forests, Anti-Biomass Incineration Campaign/Energy Justice Network, Crag Law Center, Cascadia Wildlands, Neighbors for Clean Air, and concerned citizens George Wuerthner, Dolores Benson, Bob Palzer, and Chris Zinda (hereafter “Petitioners”) hereby petition the Administrator of the Environmental Protection Agency (“Administrator” or “EPA”), pursuant to the Administrative Procedure Act (“APA”), 5 U.S.C. § 551, *et seq.*, the Clean Air Act, 42 U.S.C. § 7401, *et seq.*, and EPA’s regulations implementing the Clean Air Act, to redesignate Lakeview, Oregon, including the area within the Urban Growth Boundary in Lake County, Oregon, as nonattainment pursuant to section 107(d)(3) of the Clean Air Act, 42 U.S.C. § 7407(d)(3).

II. Description of Petitioners

The Northwest Environmental Defense Center, based in Portland, Oregon is an independent, non-profit organization working to protect the environment and natural resources of the Pacific Northwest.

Oregon Wild works to protect and restore Oregon’s wildlands, wildlife and waters as an enduring legacy for all Oregonians.

WildEarth Guardians is a western U.S.-based conservation group with offices in Denver, Salt Lake City, Utah and elsewhere throughout the American West. WildEarth Guardians is dedicated to protecting and restoring the wildlife, wild rivers, and wild places of the American West. To this end, WildEarth Guardians seeks to safeguard clean air and the climate by promoting cleaner energy, efficiency and conservation, and alternatives to fossil fuels.

¹ EPA Design Values 2006 through 2013: PM_{2.5} Detailed Information, *available at* <http://epa.gov/airtrends/values.html> (updated Aug. 28, 2014) (last accessed Sept. 10, 2014) (attached as Exhibit 1).

Beyond Toxics is located in Eugene, and works to guarantee environmental protections and health for all communities and residents. We expose root causes of toxic pollution and help communities find effective, lasting solutions.

Save Our Rural Oregon is a nonprofit, public benefit corporation that works to build up and improve the image, livability, air quality, water quality and water usage and the economy of Klamath County and its rural environment in an environmentally responsible manner

Save America's Forests is a nationwide campaign to protect and restore America's wild and natural forests.

Our Forests is a 501(c)3 nonprofit organization headquartered in "Logging Epicenter USA," Eugene, Oregon, whose mission is to promote honesty, integrity, transparency, and fairness in the human use of our forests. Our Forests (www.ourforestsforever.org) engages the public and media in timely and important forest issues, highlighting the need to reform forest practices on private and public lands.

Anti-Biomass Incineration Campaign is an autonomous nationwide network of individuals and groups organized by Energy Justice Network. The Campaign opposes all industrial, commercial and institutional burning of biomass and biofuels for energy. The Campaign calls for deep reductions in energy consumption and a rapid phase out of nuclear power and fossil fuels. The Campaign recognizes that although there is an urgent need for rapid transition from fossil energy sources, plant-based alternatives for energy are not sustainable and are a dangerous false solution that threatens to worsen rather than resolve the problems we face.

Energy Justice Network goes beyond the demands of the traditional state and national environmental groups. Energy Justice Network understands that energy issues have profound impacts on many other environmental issues from agriculture to waste, and recognizes that low-income communities and communities of color tend to be the most seriously impacted by polluting energy systems. Energy Justice Network supports a comprehensive environmental justice approach.

The Crag Law Center was founded in the summer of 2001 with the primary purpose of building the capacity of so many other dedicated individuals and organizations striving to create positive change.

Cascadia Wildlands is a grassroots conservation organization that educates, agitates, and inspires a movement to protect and restore Cascadia's wild ecosystems.

Neighbors for Clean Air ("NCA") is an Oregon non-profit environmental and community organization based in Portland with approximately 1,500 members dedicated to creating a healthier Oregon through the reduction of air pollution, with a particular focus on hazardous air pollutants. NCA works through community and legislative advocacy, education, monitoring, and as a regulatory watchdog to ensure that air pollution is monitored, and controlled or reduced, in accordance with applicable state and federal requirements.

George Wuerthner is a citizen of Bend, Oregon who is a photographer, author, and activist. He has served on the boards of several regional and national conservation organizations.

Dolores Benson is a citizen of Lakeview, Oregon who has been active in raising awareness of air pollution in Lakeview.

Bob Palzer is a citizen of Medford, Oregon who works to ensure air quality in Southern Oregon.

Chris Zinda is a citizen of Lake County, Oregon who has been active in raising awareness of air pollution regulatory permitting activities in Lakeview and throughout Oregon. Mr. Zinda's professional training is in Public Administration with an emphasis on federal National Environmental Policy Act compliance, having worked for the National Park Service for 10 years. Now a stay-at-home dad, he has developed primary source information through public comment processes associated with Lakeview, Oregon's industrial air quality permitting, the implementation of EPA's PM Advance program, area designations for NAAQS, and revisions of Oregon's state implementation plan ("SIP").

The petitioners and certain members of the petitioner organizations live or recreate near, and breathe the air in and around, the Lakeview, Oregon area.

III. EPA Must Redesignate Lakeview, Oregon to Nonattainment for Fine Particulate Matter

1. EPA has the legal authority to initiate the redesignation process.

The Clean Air Act directs the Administrator to identify criteria air pollutants that may reasonably be anticipated to endanger public health and welfare. *See* 42 U.S.C. § 7408(a)(1). Once criteria air pollutants are identified, EPA must promulgate NAAQS for such pollutants. *See* 42 U.S.C. § 7409(a). EPA is obligated to establish primary NAAQS for criteria pollutants at a level "requisite to protect the public health." *Id.* § 7409(b)(1). EPA is also obligated to establish secondary NAAQS for criteria pollutants at a level "requisite to protect the public welfare[.]" *Id.* § 7409(b)(2).

Section 107(d) of the Clean Air Act directs EPA to identify those areas that are violating the NAAQS, and those nearby areas that are contributing to violations of the NAAQS, as the geographic areas within which states must address local emission sources for purposes of local attainment needs in accordance with the requirements of section 172 and applicable regulations. 42 U.S.C. § 7407(d). Within two years of promulgating a NAAQS (plus a possible one year extension), EPA must promulgate the designations of all areas. *Id.* § 7407(d)(1). An area that (1) does not meet an ambient air quality standard, or (2) contributes to ambient air quality in a nearby area that does not meet the standard, must be designated as a nonattainment area. *Id.* § 7407(d)(1)(A)(i). An attainment area is one "(other than an area identified [as nonattainment]) that meets the national primary or secondary ambient air quality standard for the pollutant." *Id.* § 7407(d)(1)(A)(ii). The initial designation for an area remains in effect until the area is redesignated. *Id.* § 7407(d)(B)(iv).

Section 107(d)(3) of the Act gives EPA the authority to redesignate areas when air quality data, planning and control considerations, or any other air quality related considerations indicate that an area designation should be revised. 42 U.S.C. § 7407(d)(3)(A). In fact, if an area meets either prong of the definition of nonattainment listed above, EPA is *required* to designate the area as nonattainment. 74 Fed. Reg. 58,688, 58,693 (Nov. 13, 2009). To do so, EPA must first notify the Governor of the state “that available information indicates that the designation of any area or portion of an area . . . should be revised.” 42 U.S.C. § 7407(d)(3)(A). Such notification triggers a 120-day deadline by which the Governor must submit the redesignation to EPA. *Id.* § 7407(d)(3)(B). In turn, EPA must promulgate the redesignation within 120 days of receiving the Governor’s response. *Id.* § 7407(d)(3)(C). If the Governor fails to submit the redesignation, EPA must promulgate an appropriate redesignation. *Id.*

Interested parties such as the petitioners identified herein may also petition the EPA to redesignate an area to nonattainment. For example, in 2009 EPA received a petition from the American Lung Association and other groups requesting that EPA take action to promulgate designations for the 2006 annual PM_{2.5} NAAQS. *See* Letter to Lisa Jackson, Administrator, U.S. EPA, dated February 6, 2009, from the American Lung Association, Clean Air Task force, EarthJustice, Environmental Defense Fund, Natural Resources Defense Council, and Southern Environmental Law Center. Based on 2006-2008 monitoring data indicating that two areas designated as “unclassifiable/attainment” for the 1997 annual PM_{2.5} NAAQS later violated that standard, EPA initiated the process to redesignate those areas, including both violating and contributing areas, to nonattainment in accordance with the procedures in section 107(d)(3) of the Clean Air Act. 74 Fed. Reg. at 58693. EPA thus has the legal authority to redesignate areas to nonattainment, either on its own initiative or in response to a petition.

2. EPA must immediately initiate the process to redesignate the Lakeview area to nonattainment with the federal PM_{2.5} standard.

Petitioners request that the EPA redesignate the Lakeview area, including the Urban Growth Boundary (“UGB”), as nonattainment with the 2006 24-hour PM_{2.5} NAAQS because PM_{2.5} levels in this area have consistently violated the federal standard. Petitioners further request that EPA promulgate this designation by amending 40 C.F.R. parts 52 and 81 to reflect the change in designation. Petitioners request that in redesignating these nonattainment areas, EPA delineate the boundaries to include any and all areas (1) not meeting, and (2) contributing to ambient air quality in areas nearby Lakeview.

Adverse Impacts from Exposure to PM_{2.5}

Particulate matter is the general term used for a mixture of solid particles or liquid droplets found in the air. Fine particulate matter (PM_{2.5}) in the atmosphere is composed of a complex mixture of particles: sulfate, nitrate, and ammonium; particle bound water; elemental carbon, organic carbon representing a variety of organic compounds; and crustal material. PM_{2.5} is referred to as “primary” if it directly emitted into the air as a solid or liquid particle and its chemical form is stable or if it is formed near the source by condensation processes. Primary PM_{2.5} includes soot from diesel engines, fuel combustion products from industrial “hog fueled”

and other “biomass” processes, and fuel combustion products from agricultural and residential sources such as fireplaces, woodstoves, and pile or forest burning.

The EPA has recognized that health studies demonstrate significant associations between exposure to PM_{2.5} and premature death from heart and lung disease. *See, e.g.*, 74 Fed. Reg. 58,688 (Nov. 13, 2009). Due to their small size, PM_{2.5} can penetrate deeply into the lungs when inhaled and can accumulate, react, or be absorbed into the body. At high levels, PM_{2.5} is lethal. Even at very small concentrations, however, PM_{2.5} can cause a myriad of adverse health impacts including:

- ☐ Increased respiratory symptoms such as irritation of the airways, coughing, or difficulty breathing
- ☐ Decreased lung function
- ☐ Aggravation of heart and lung diseases
- ☐ Cardiovascular symptoms
- ☐ Cardiac arrhythmias
- ☐ Heart attacks
- ☐ Respiratory symptoms
- ☐ Asthma attacks
- ☐ Premature death
- ☐ Bronchitis

Id. The effects may result in increased hospital admissions, emergency room visits, absences from school or work, and restricted activity days. *Id.* According to the EPA, people with lung disease, children, older adults, and even active adults are likely to be more sensitive to the impacts of fine particulate matter. *Id.*

Fine particulate matter also has negative environmental impacts. For example, EPA determined that PM_{2.5} impairs visibility in various locations across the country, including urban areas and Class I Federal areas such as national parks and wilderness areas. 71 Fed. Reg. 61,144, 61,203 (Oct. 17, 2006). In addition, particulate matter contributes to adverse effects on vegetation, ecosystems, climate, and causes damage to and deterioration of property. *Id.* at 61,209. Specifically, excess levels of particulate nitrate and sulfate can lead to acidifying deposition to foliage, accelerated weathering of leaf and cuticular surfaces, increased permeability of leaf surfaces to toxic materials, water, and disease agents, increased leaching of nutrients and foliage, and altered reproductive processes. *Id.* at 61,209. Ultimately these impacts weaken trees and render them susceptible to other stresses. *Id.* PM deposited on terrestrial and aquatic ecosystems contributes to adverse impacts on species shifts, loss of diversity, and alteration of native fire cycles. *Id.* Ambient particles impact climate by scattering and absorbing radiation, changing the number and size distribution of cloud droplets, and altering the amount of ultraviolet solar radiation penetrating through the atmosphere to ground level. *Id.* Finally, PM nitrates and sulfates that deposit on materials may cause physical damage to and deterioration of property. *Id.*

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National Ambient Air Quality Standards for Fine Particulate Matter

In 1997 EPA revised the NAAQS for PM by, *inter alia*, adding two new standards for fine particles (PM_{2.5}), equal to or less than 2.5 microns in diameter, based on their link to serious health problems. 62 Fed. Reg. 38,652 (July 18, 1997). EPA set the primary (health based) and secondary (public welfare based) annual standards at 15 micrograms per cubic meter (µg/m³) based on the 3-year average of annual arithmetic mean PM_{2.5} concentrations from single or multiple community-oriented monitors. *Id.* EPA set the primary and secondary 24-hour PM_{2.5} standards at 65 µg/m³ based on the 3-year average of the 98th percentile of 24-hour PM_{2.5} concentrations at each population-oriented monitor within an area. *Id.* See also 40 C.F.R. § 50.7.

In 2006 EPA strengthened the primary and secondary 24-hour PM_{2.5} NAAQS by lowering the standard from 65 µg/m³ to 35 µg/m³. 71 Fed. Reg. at 61,144. EPA created a more stringent standard based on significant evidence and numerous health studies demonstrating that serious health effects are associated with short-term exposures to PM_{2.5} at this level. The 2006 24-hour PM_{2.5} standard is met whenever the three year average of the annual 98th percentile of values at monitoring sites is less than or equal to 35 µg/m³. 40 C.F.R. § 50.13.

The Clean Air Act itself does not define what constitutes a violation of the NAAQS, but EPA's 2007 guidance concerning how to determine boundaries for nonattainment areas for the 2006 24-hour PM_{2.5} NAAQS states that the three most recent calendar years of air quality monitoring data for PM_{2.5} be used to identify a violation of the 24-hour PM_{2.5} NAAQS. See Memorandum from Robert J. Meyers, Acting Assistant Administrator, to EPA Regional Administrators Regions I-X, "Area Designations for the Revised 24-Hour Fine Particle National Ambient Air Quality Standard" (June 8, 2007). This three-year average is often referred to as a "design value." EPA relied on such design values to make area designations under the 2006 24-hour PM_{2.5} NAAQS in 2009. See 74 Fed. Reg. at 58693 (noting that "EPA identified violating monitors based on air quality monitoring data from Federal Reference Monitors for the calendar years 2006-2008").

Lakeview's Violations of the 2006 24-hour PM_{2.5} NAAQS

Lakeview was formerly designated nonattainment and is currently designated as a maintenance area for coarse particulate matter (PM₁₀). Currently, Lakeview is designated as an attainment/unclassifiable area for the 2006 24-hour PM_{2.5}. Lakeview was not formally designated as nonattainment area during the initial 2009 area designations for 2006 24-hour PM_{2.5} due to insufficient air quality monitoring information.

Since that time, air quality monitoring conducted by the Oregon Department of Environmental Quality ("DEQ") indicates that Lakeview is and has been violating the 2006 24-hour PM_{2.5} NAAQS. Monitoring data from the single monitor in the region shows the design values exceeded the 2006 24-hour PM_{2.5} NAAQS of 35 µg/m³ since it was first promulgated:

Table 1: 24-hour Design Values for Lakeview, Oregon ($\mu\text{g}/\text{m}^3$)²					
2006-2008	2007-2009	2008-2010	2009-2011	2010-2012	2011-2013
41	41	38	36	34	56

From 2011-2013, Lakeview's 24-hour $\text{PM}_{2.5}$ three-year average was $56 \mu\text{g}/\text{m}^3$. This makes Lakeview the fifth worst violator of the 2006 24-hour $\text{PM}_{2.5}$ standard in the nation during this timeframe.

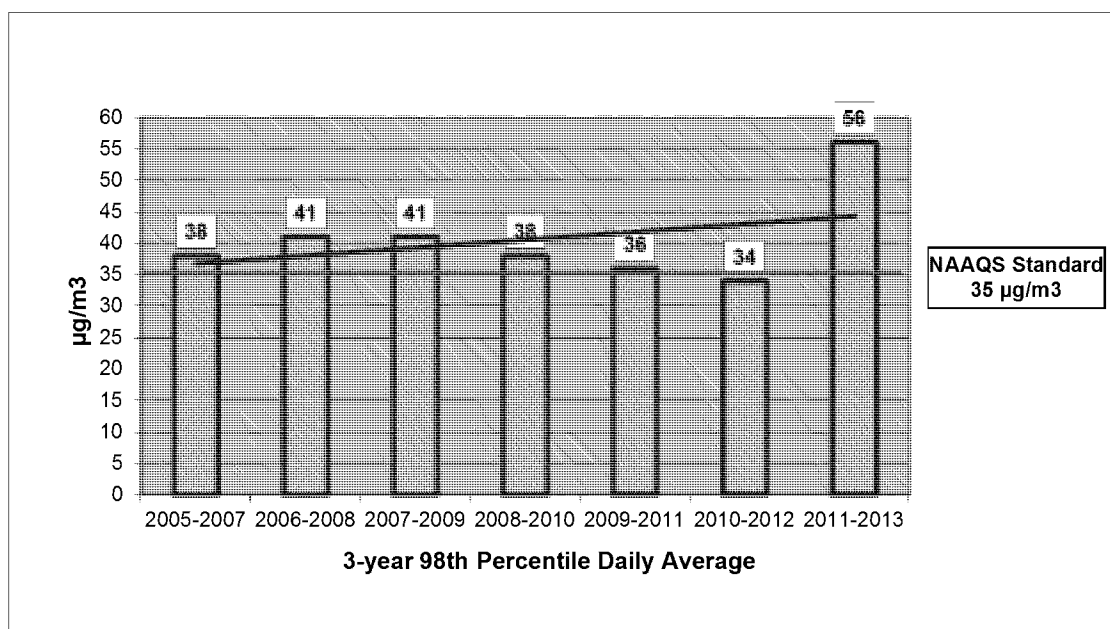
Table 2: $\text{PM}_{2.5}$ 24-hour Monitor Values for Lakeview, Site ID 410370001³								
Year	Exc Events	Obs	First Max	Second Max	Third Max	Fourth Max	98th Percentile	Weighted Arithmetic Mean
2014	None	30	47.4	44.4	42.3	36.8	47	13.1
2013	None	121	104	103	93.6	92.2	94	14.6
2012	Included	114	42.2	38.6	36.7	36.3	37	9.7
2011	None	110	58.3	38.5	37.8	34.3	38	9.1
2010	None	116	34.2	32.1	26.3	26	26	7.5
2009	Included	121	62.4	61.2	43.2	42.6	43	10.6
2008	Included	118	71.6	44.8	43.7	43	44	11.2
2007	None	86	44	37.5	28.8	26.3	38	8.1

For 2013 alone, Lakeview's 98th percentile concentration for the $\text{PM}_{2.5}$ 24-hour average was $94 \mu\text{g}/\text{m}^3$.

² Created from EPA's Design Values in Exhibit 1. See EPA Design Values 2006 through 2013, *supra* note 1.

³ EPA AirData, Summary of 24-hour $\text{PM}_{2.5}$ Monitor Values for Lake County, Lakeview, Oregon, Site ID No. 410370001, POC 1, EPA Region 10, available at <http://www.epa.gov/airdata/index.html> (last accessed Sept. 10, 2014). AirData provides access to air quality data collected at outdoor monitors across the United States that comes primarily from the Air Quality System (AQS) database. The AQS database contains ambient air pollution data collected by EPA, state, local, and tribal air pollution control agencies from thousands of monitoring states and is used to, *inter alia*, assess air quality and assist in Attainment/Non-Attainment designations.

**Figure 1: Lakeview Center and M Street Monitor
Three Year 98th Percentile Daily Average Concentrations⁴**



As the trend line above illustrates, the Lakeview area is nowhere close to being considered a borderline violator of the 2006 24-hour PM_{2.5} standard. Lakeview has consistently violated the 2006 24-hour PM_{2.5} NAAQS.

EPA Must Redesignate Lakeview to Nonattainment

Air quality monitoring data demonstrating Lakeview has violated the 2006 24-hour PM_{2.5} standard requires EPA to redesignate the Lakeview area to nonattainment. EPA's discretion under section 107(d)(3) of the Act to consider various factors is guided by language and structure of the Clean Air Act. Indeed, Congress made clear in the definitions of the difference designations that it intended EPA to redesignate areas based on air quality data. Section 107(d)(1) expressly defines "nonattainment" as any area that does not meet the NAAQS. 42 U.S.C. § 7407(d)(1)(i). This section goes on to define "attainment" to exempt any area meeting the definition of nonattainment. *Id.* § 7407(d)(1)(ii) ("attainment, any area (other than an area identified in clause (i))"). EPA has embraced this understanding. 74 Fed. Reg. at 58,693 ("If an area meets either prong of the definition of nonattainment . . . EPA is required to designate the area as 'nonattainment.'"). Thus EPA must redesignate Lakeview area as nonattainment based on the area's design values showing violations of the 2006 24-hour PM_{2.5} standard.

Redesignation to Nonattainment Provides Meaningful and Necessary Protection

The Clean Air Act requires states with areas designated nonattainment to undertake specific planning and pollution control activities within these areas, imposing a requirement to

⁴ Created from EPA's Design Values in Exhibit 1. See EPA Design Values 2006 through 2013, *supra* note 1.

attain the federal standards “as expeditiously as practicable, but no later than 5 years from” the date of nonattainment designation. 42 U.S.C. § 7502(a)(2). Proper designation of areas also helps citizens know whether the air quality where they live and work is healthful or not.

Once an area is designated as nonattainment for PM_{2.5}, states must submit SIP revisions by date certain. *Id.* § 7502(b). The plan must provide for implementation of all reasonably available control measures as expeditiously as practicable, including application of reasonably available control technology (“RACT”) to existing sources; it must provide for attainment of the NAAQS; it must require reasonable further progress to achieving the NAAQS; it must include a comprehensive, accurate, current inventory of actual emissions from all sources of PM_{2.5}. *Id.* § 7502(c). For major new or modified sources, the plan must expressly identify and quantify the emissions, if any, of PM_{2.5} that will be allowed and require implementation of the lowest achievable emissions rate (“LAER”) through permitting requirements. *Id.* § 7502(c)(4), (5). Finally, the plan must include enforceable emission limitations, control measures, means or techniques, and schedules and timetables as necessary to provide for attainment, as well as contingency measures to be undertaken in case the area fails to make reasonable further progress or attain the NAAQS by date certain. *Id.* § 7502(c)(6).

Where a state fails to make required SIP submissions or to adequately implement a SIP to attain the NAAQS in a nonattainment area, EPA may impose sanctions. 42 U.S.C. § 7509(a). Specifically, EPA may restrict highway funding or impose a more stringent emissions offset ratio of at least 2 to 1 for new or modified sources. *Id.* § 7509(b).

Background on Lakeview

Lakeview, Oregon is located in a geographic region characterized as basin and range. The region is defined as graben valleys ringed by scarp fault mountains. Lakeview is situated on the northern end of the Goose Lake graben valley, directly west of and at the foot of the Warner Mountains that rise over three thousand feet above the valley floor. This particular kind of topography is a major cause of the air quality problems present in Lakeview and along the Warner Mountains in Oregon and California. High-pressure weather systems create both warm and cold weather inversions that trap pollutants in the valleys for extended periods of time, helping to create hazardous air quality conditions. According to Oregon DEQ:

Lakeview can experience very strong nighttime inversions....In the wintertime, arctic air masses frequently move over the Lakeview area valley. Temperatures can remain well below freezing for several weeks at a time. Winter nights are commonly clear and cool in the valley. Under these conditions, inversions and air stagnation can occur and reoccur for many days in a row over Lakeview.

Town of Lakeview, Lake County and Oregon Department of Environmental Quality, *Particulate Matter Advance Action Plan* (Sept. 2014), page 2.

The region is not only geographically distinct, but also industrially distinct with a heavy reliance on mining and wood products industries. The two main industrial sources of emissions are the Collin’s Fremont Sawmill and Cornerstone Minerals. Both sources use antiquated

emissions control technology and operate pursuant to an Air Contaminant Discharge Permit (“ACDP”) issued by DEQ. In addition, Lakeview Cogeneration, LLC is a biomass electrical energy generation facility owned by Iberdrola Renewables. DEQ issued this facility a modified ACDP in 2013 that tripled the amount of allowable PM_{2.5} authorized in the previous 2010 ACDP. Each of these facilities represent Lakeview’s heavy current and future reliance on resource extraction industries. DEQ has not required any of these facilities to install more stringent controls such as RACT to control PM_{2.5} emissions or to provide offsets for emissions because Lakeview is still formally designated as attainment.

Further, delaying the necessary redesignation will allow pending projects to construct and operate in the area without the necessary, more stringent controls on PM_{2.5} emissions. First, Iberdrola Renewables has received DEQ authorization, under ACDP No. 19-0033-ST-01, to construct a biomass electrical generation facility in Lakeview that will be allowed to emit an additional 32 tons of PM_{2.5}, annually. Second, Redrock Biofuels has proposed a \$70 million biofuels facility for Lakeview. This project will use a \$4.1 million dollar Department of Defense grant to turn 140,000 tons of juniper trees into 14 million gallons of jet fuel. In the works since 2011, this project has not yet been issued an ACDP. Without a nonattainment designation, these projects will be constructed and operate without the installation of LAER to control PM_{2.5} emissions and without offsets that would reduce overall PM_{2.5} emissions.

Finally, Lakeview suffers from poor economic conditions, which raises the critical question of social and environmental justice. Roughly 17% of the Lakeview population is below the poverty level. *See* CensusViewer, Lakeview, Oregon Population: Census 2010 and 2000 Interactive Map, Demographics, Statistics, Quick Facts, *available at* <http://censusviewer.com/city/OR/Lakeview> (last accessed Sept. 11, 2014). The economically disadvantaged, combined with a general population that has traditionally relied on residential wood heating as a primary heat source, means that residential wood burning for home heating purposes is a major contributor of PM_{2.5} in Lakeview. DEQ has chosen to focus its state planning and controls on these sources, resulting in a discriminatory burden on the economically disadvantaged general public. The various industries listed above, however, should be required to properly mitigate their impact to air quality and resultant environmental and human health. The more stringent control of PM_{2.5} emissions from industrial sources that would apply under a nonattainment designation is imperative to ensure that Lakeview’s high levels of PM_{2.5} emissions does not worsen and that the costs associated with future mitigation measures are shared by the sources causing or contributing to the problem.

Reliance on the NAAQS Advance Program is Improper

In 2013, Lakeview, Oregon was one of the first communities in the United States offered the advantage of the EPA preplanning program called Particulate Matter (PM) Advance. First used for ozone in 2012, the Advance program is designed to encompass all NAAQS regulated constituents. In short, areas that are at or just below a newly promulgated NAAQS for a particular pollutant are given additional time (in five year increments) to reduce their emissions to ensure those areas continue to meet the standard. *See* EPA, *Advance: A U.S. Environmental Protection Agency Program*, *available at* <http://www.epa.gov/airquality/advance/> (last accessed

Sept. 11, 2014). The purpose of the Advance program is to help these areas avoid nonattainment designation and the strict requirements associated with it, outlined above.

EPA may not rely on Lakeview's plans to implement a PM Advance program to justify failing to redesignate the area as nonattainment. The Advance program contains express statements that it does not apply to nonattainment areas. *See* EPA, *PM Advance Eligibility*, available at <http://www.epa.gov/airquality/advance/eligibilityPM.html> (last accessed September X, 2014) (noting that to be eligible to participate in the PM Advance program "[t]he area(s) to which the . . . local government is signing up is/are not designated nonattainment for either the 1997 or 2012 annual PM_{2.5} NAAQS and/or the 2006 24-hour PM_{2.5} NAAQS."); *see also id.* ("It is important to note that signing up for PM Advance does not shield an area from being redesignated to nonattainment if the area eventually violates the PM_{2.5} NAAQS.").

Because Lakeview has consistently violated the 2006 24-hour PM_{2.5} NAAQS it is not eligible for this program. Moreover, none of EPA's NAAQS Advance programs (ozone and PM) provide for public notice and comment procedures. In fact, EPA expressly denies any federal oversight of state or local entities that choose to implement the Advance program. Reliance on the PM Advance program in this instance would be inconsistent with the express language of the Clean Air Act and would undercut its purposes.

Reliance on Oregon's Control Programs is Improper

EPA may not rely on Oregon's programs to justify failing to redesignate the area as nonattainment. States are primarily responsible for ensuring attainment and maintenance of ambient air quality standards once EPA has established them. The Clean Air Act requires states to submit for EPA approval State Implementation Plans ("SIPs") that provide for the attainment and maintenance of the NAAQS through control programs directed to sources of the pollutants involved. 42 U.S.C. § 7410. DEQ has an EPA-approved SIP. DEQ is, therefore, the agency with primary responsibility for implementing the Clean Air Act in Oregon.

DEQ is currently updating its SIP. DEQ Rules and Regulations, *Air Quality Permitting Updates*, available at <http://www.oregon.gov/deq/RulesandRegulations/Pages/2014/aqperm.aspx> (last accessed Sept. 11, 2014) (hereafter, "DEQ Notice"). Oregon's state designations currently mirror the federal designations of attainment or unclassifiable, nonattainment, and maintenance. DEQ has proposed to complicate these designations by adding a second layer of state designations: sustainment and reattainment. The sustainment designation would apply to areas federally designated as attainment but on the verge of violating the NAAQS. The reattainment designation would apply to areas federally designated as nonattainment.

DEQ is seeking to apply the attainment/sustainment designation to Lakeview. DEQ itself states that the purpose of a sustainment designation for Lakeview is to avoid nonattainment designation and the attendant rigorous standards. *See* DEQ Notice at 858 ("Local officials expect to bring the area quickly back into attainment with the standards *to avoid* a federal nonattainment designation and the resulting impacts on costs for businesses seeking to locate there.") (emphasis added). Yet the data provided above shows Lakeview at nearly three times

the primary standard in 2013 with a 3-year average 160% above the primary standard, making quick and lasting compliance with the standard unlikely.

Further, DEQ hopes a sustainment designation will allow continued economic growth in the area. DEQ explains that under existing state rules, areas that are near or above the NAAQS find it “difficult or impossible for new and expanding businesses to demonstrate that their added emissions will not cause or contribute to air quality violations” because current rules do not provide for offset possibilities. *Id.* The proposed sustainment designation would allow new permits, requiring offsets at a ratio of only 0.1:1, which could drop as low as 0.5:1. These ratios are much too low to adequately contain or reduce overall PM_{2.5} levels. DEQ goes on to explain that the “Lakeview community voluntarily participates in EPA’s ‘PM Advance’ program” and “DEQ has determined that the PM Advance plan and designation as a sustainment area would complement each other to address stationary sources within the Lakeview area.” *Id.* at 858. As noted above, Lakeview is not eligible for the PM Advance program. Reliance on DEQ’s proposed new sustainment designation to avoid the redesignation of Lakeview to nonattainment risks the health of that community and delays the necessary action that Congress intended. DEQ’s proposed sustainment designation thereby undercuts the express Congressional intent as set forth in the Clean Air Act.

IV. Conclusion

Redesignating Lakeview to nonattainment will ensure that PM_{2.5} pollution is reduced and industrial emissions are better controlled, affording greater protection to the people, particularly children and the elderly in the area. In addition, undertaking the requested actions will ensure that the problem is resolved through effective and enforceable means. On the basis of EPA’s own data, petitioners request that EPA notify the Governor of Oregon that available information indicates that Lakeview should be redesignated as nonattainment for the 2006 24-hour PM_{2.5} NAAQS, pursuant to section 107(d)(3)(A) of the Clean Air Act. Because PM_{2.5} emissions pose a significant threat to public health and welfare, the need to undertake this action in a timely fashion is critical. Petitioners request that EPA provide such notice to the Governor of Oregon within 30 days of receiving this petition.

Sincerely,

/s/Marla Nelson
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Submitted on behalf of the Northwest Environmental Defense Center, WildEarth Guardians, Oregon Wild, Beyond Toxics, Save Our Rural Oregon, Save America’s Forests, Our Forests, Anti-biomass Incineration Campaign/Energy Justice Network, Crag Law Center, Cascadia

Wildlands, Neighbors for Clean Air, and concerned citizens George Wuerthner, Dolores Benson, Bob Palzer, and Chris Zinda

DATED: September 15, 2014

Cc: Janet McCabe, Acting Assistant Administrator, Office of Air and Radiation
Steve Page, Director, Office of Air Quality Planning and Standards
Dennis McLerran, Regional Administrator, EPA Region 10
Dick Pedersen, Director, Oregon DEQ

Exhibits:

1. EPA Design Values 2006 through 2013: PM2.5 Detailed Information, *available at* <http://epa.gov/airtrends/values.html> (updated Aug. 28, 2014) (last accessed Sept. 10, 2014).
2. Lakeview Area – Particulate Matter Advance Action Plan, Town of Lakeview, Lake County and the Oregon Department of Environmental Quality, September 2014.
3. Oregon Department of Environmental Quality State Implementation Plan Revision, Public Notice, “Kitchen Sink” (web addy).

To: McCabe, Janet[McCabe.Janet@epa.gov]; Stewart, Lori[Stewart.Lori@epa.gov]; Simon, Karl[Simon.Karl@epa.gov]; Grundler, Christopher[grundler.christopher@epa.gov]; Garbow, Avi[Garbow.Avi@epa.gov]; OGC Front Office MGMT[OGC_Front_Office_MGMT@epa.gov]; Jordan, Deborah[Jordan.Deborah@epa.gov]
Cc: Dickinson, David[Dickinson.David@epa.gov]; Cohen, Janet[cohen.janet@epa.gov]; Read, David[read.david@epa.gov]; Orlin, David[Orlin.David@epa.gov]; Schmidt, Lorie[Schmidt.Lorie@epa.gov]; Srinivasan, Gautam[Srinivasan.Gautam@epa.gov]
From: Okoye, Winifred
Sent: Thur 11/5/2015 3:35:18 PM
Subject: Oral Argument in challenge to s 209(e) authorization for California's Non road diesel engine standards
[ENV DEFENSE-#712795-v1-ARTBA - DC - Joint Petitioners Brief and Affidav....pdf](#)
[ENV DEFENSE-#724617-v1-ARTBA - DC - CARB Intervenor Brief.PDF](#)
[ENV DEFENSE-#730935-v1-ARTBA - DC - FINAL merits brief \(filed\).PDF](#)
[ENV DEFENSE-#731200-v1-ARTBA - DC - Final Appellants Reply Brief.PDF](#)

On Monday, November 9, the D.C. Circuit will hear oral argument in Dalton Trucking, Inc., v. EPA, in which Dalton Trucking and a host of trucking associations, such as California Construction Trucking Association and the American Road and Transportation Builders Association (ARTBA) challenge EPA's decision to grant an authorization for California to enforce PM and NO_x in-use standards for certain nonroad engines and vehicles.

Attorney Client

Attorney Client

Please let me or David Orlin **Personal Privacy** know if you have any questions.

ORAL ARGUMENT NOT YET SCHEDULED

Nos. 13-1283; 13-1287 (Consolidated)

IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

DALTON TRUCKING, INC., ET AL.;

Petitioners,

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, ET AL.,

Respondent.

On Appeal from the Environmental Protection Agency
EPA-HQ-OAR-2008-0691
78 Fed. Reg. 58,090 (September 20, 2013)

**JOINT OPENING BRIEF OF PETITIONERS DALTON
TRUCKING, INC., ET AL., AND AMERICAN ROAD &
TRANSPORTATION BUILDERS ASSOCIATION**

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**CERTIFICATE AS TO PARTIES, RULINGS,
AND RELATED CASES**

Pursuant to Circuit Rule 28(a)(1), the petitioners state as follows:

The petitioners challenge the final action of the respondents published at 78 Fed. Reg. 58,090 (Sept. 20, 2013), entitled, “*California State Nonroad Engine Pollution Control Standards; Off-Road Compression Ignition Engines - In-Use Fleets; Notice of Decision; Notice.*”

(A) Parties and *Amici*

PETITIONERS

Case 13-1283

Dalton Trucking, Inc.; Loggers Association of Northern California, Inc.; Robinson Enterprises, Inc.; Nuckles Oil Company, Inc., dba Merit Oil Company; California Construction Trucking Association, Inc.; Construction Industry Air Quality Coalition; Delta Construction Company, Inc.; Southern California Contractors Association, Inc; Ron Cinquini Farming; and United Contractors.

Case No. 13-1287

American Road and Transportation Builders Association.

RESPONDENTS IN BOTH CASES

United States Environmental Protection Agency and Gina McCarthy in her official capacity as Administrator of the United States Environmental Protection Agency.

INTERVENORS

California Air Resources Board

AMICI

There are no amici at this time.

(B) Rulings Under Review

These petitions for review challenge the Respondents' California waiver decision under the Clean Air Act, set forth in 78 Fed. Reg. 58,090, *et seq.* (Sept. 20, 2013), entitled, "*California State Nonroad Engine Pollution Control Standards; Off-Road Compression Ignition Engines - In-Use Fleets; Notice of Decision; Notice.*

(C) Related Cases

None.

CORPORATE DISCLOSURE STATEMENT

Pursuant to Federal Rule of Appellate Procedure 26.1, and Circuit Rule 26.1, the respective petitioners provide the following disclosures:

Case No. 13-1283

Dalton Trucking, Inc., is a California corporation engaged in the business of operating and leasing loaders, dozers, blades, and water trucks and performs specialized services in open top bulk transportation, lowbed, general freight on flatbeds and vans, as well as rail, intermodal, and 3PL services. Dalton Trucking, Inc., has no parent companies. No publicly held corporation has 10% or greater ownership in Dalton Trucking, Inc.

Loggers Association of Northern California, Inc. (“LANC”) is a nonprofit California trade association representing the interests of its members involved in the logging industry in Northern California. LANC has no parent companies. No publicly held corporation has 10% or greater ownership in LANC.

Robinson Enterprises, Inc. (“Robinson”) is a California corporation engaged in various businesses, including forest products and fuels. Robinson has no parent companies. No publicly held corporation has 10% or greater ownership in Robinson.

Nuckels Oil Co., Inc. dba Merit Oil Company (“Merit Oil Company”) is a California corporation and is a petroleum jobber, wholesaler, and distributor. Merit

Oil Company has no parent companies. No publicly held corporation has 10% or greater ownership in Merit Oil Company.

Construction Industry Air Quality Coalition (“CIAQC”) is a nonprofit California trade association representing the interests of other California nonprofit trade associations and their members whose air emissions are regulated by California state, regional, and local regulations, as well as federal regulations. CIAQC has no parent companies. No publicly held corporation has 10% or greater ownership in CIAQC.

California Construction Trucking Association, Inc. (“CCTA”) is a nonprofit California trade association representing the interests of over 1,000 members involved in a variety of business throughout California whose members own and operate on-road and non-road vehicles, engines, and equipment. CCTA has no parent companies. No publicly traded corporation has 10% or greater ownership in CCTA.

Delta Construction Company, Inc. is a California corporation engaged in the business of road construction, performing services such as road paving, reconstruction, shoulder widening, and fabric installation. Delta Construction Company, Inc., has no parent companies. No publicly held corporation has 10% or greater ownership in Delta Construction Company, Inc.

Southern California Contractors Association, Inc. (“SCCA”) is a nonprofit California corporation representing the interests of construction contractors operating

in Southern California. SCCA has no parent companies. No publicly held corporation has 10% or greater ownership in SCCA.

Ron Cinquini Farming (“Cinquini”) is a farming business located in Central California. Cinquini has no parent companies. No publicly held corporation has 10% or greater ownership in Ron Cinquini Farming.

United Contractors is a trade association representing union-affiliated contractor businesses and associate firms throughout the western United States. United Contractors has no parent company, and no publicly held company has a 10% or greater ownership interest in it.

Case No. 13-1287

Petitioner American Road and Transportation Builders Association states (a) that it is a District of Columbia nonprofit trade organization that represents the collective interests of the U.S. transportation construction industry before the national executive, legislative, and judicial branches of government; (b) that it is an umbrella group for more than 5,000 members from all sectors and modes of the transportation construction industry (including without limitation roads, public transit, airports, ports, and waterways); and (c) that it has no parent corporations and that no publicly held company owns any stock in it.

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GLOSSARY OF ABBREVIATIONS

APA.....	Administrative Procedure Act
ARTBA.....	American Road and Transportation Builders Association
CAA.....	Clean Air Act
CARB.....	California Air Resources Board
CIAQC.....	California Industry Air Quality Coalition
CCTA.....	California Construction Association, Inc.
Delta.....	Delta Construction Company, Inc.
EPA.....	Environmental Protection Agency
FSOR.....	ARB's in a State to Reasons
LANC.....	Loggers Association of Northern California
LEV.....	Low Emission Vehicle
NOx.....	Oxides of Nitrogen
PM.....	Particulate Matter
SCCA.....	South California Contract Association, Inc.
SIP.....	State Implementation Plan

JURISDICTIONAL STATEMENT

In these consolidated petitions for review, Petitioners Dalton Trucking, Inc.; Loggers Association of Northern California, Inc.; Robinson Enterprises, Inc.; Nuckles Oil Company, Inc., dba Merit Oil Company; California Construction Trucking Association, Inc.; Construction Industry Air Quality Coalition; Delta Construction Company, Inc.; Southern California Contractors Association, Inc; Ron Cinquini Farming; and United Contractors (the “California Petitioners”) in No. 13-1283, and Petitioner American Road & Transportation Builders Association (“ARTBA”) in No. 13-1287, seek review of the United States Environmental Protection Agency’s (“EPA’s”) final agency action published at 78 Fed. Reg. 58,090 (Sept. 20, 2013) (the “California Nonroad Engine Waiver Decision”) (JA—), granting California’s application under the Clean Air Act, 42 U.S.C. § 7401 *et seq.*, for waiver from federal preemption of California’s *Nonroad Engine Pollution Control Standards - Off-Road Compression Ignition Engines - In-Use Fleets* 13 Cal. Code Regs. §§ 2449-2449.3 (the “Nonroad Engine Rules”). (JA—). On November 18, 2013 (No. 13-1283) and November 19, 2013 (No. 13-1287), the Petitions for Review were filed within the requisite 60-day period under CAA § 307(b)(1), 42 U.S.C. § 7607(b)(1), and this Court has jurisdiction under that provision, as well as under 5 U.S.C. §§ 702, 706.

STATEMENT OF ISSUES

Case No. 13-1283

1. Whether this Court should transfer this case to the Ninth Circuit because the Ninth Circuit is the proper venue for the issues raised.

2. If this Court does not transfer to the Ninth Circuit:

a. Whether EPA applied the correct statutory standard to make the California Nonroad Engine Waiver Decision;

b. Whether section 209(e)(2)(a)(ii) of the Clean Air Act requires EPA to make California waiver decisions based on California's need for the particular air emission standard for which California files a waiver request due to compelling and extraordinary conditions in the state;

c. Whether EPA's position and interpretation that California's "need" for any particular standard refers not to the need for the standard itself but to the need for California to have its own motor vehicle air emissions program "as a whole" is permissible under section 209(e)(2)(a)(ii) of the Clean Air Act.

d. Whether EPA's decision to grant the waiver was arbitrary and capricious or otherwise not in accordance with law.

Case No. 13-1287

In connection with the first question presented in No. 13-1283, ARTBA presents three related or subsidiary questions:

1. Whether EPA's findings of nationwide scope or effect under Clean Air Act § 307(b)(1), 42 U.S.C. § 7607(b)(1), are reviewable?

2. Whether Clean Air Act § 209(e)(2)(B)'s identically and two-year lead time criteria, 42 U.S.C. § 7543(e)(2)(B), preclude states other than California from adopting California's in-use, off-road diesel rule, 13 Cal. Code Regs. §§ 2449-2449.3 (*i.e.*, whether the rule's annually decreasing emission standards now in effect preclude adopting identical standards two years before the rule takes effect), thereby making EPA's waiver determination one that applies only in California.

3. Assuming *arguendo* that the Court can decide the lawfulness of EPA's waiver without addressing the ability of non-California states to adopt California's standard, whether the special statutory review in Clean Air Act § 307(b)(1), 42 U.S.C. § 7607(b)(1), is inadequate or unavailable for ARTBA's question and thereby vests jurisdiction over ARTBA's question in the district court under 5 U.S.C. § 703.

FEDERAL STATUTES AND REGULATIONS

Pertinent statutes, regulations, and legislative history are in the Addendum. (JA—).

STATEMENT OF THE CASE AND FACTS

To encourage travel and commerce throughout the nation, the Clean Air Act ("CAA") preempts individual states from adopting standards relating to the control of emissions from motor vehicles. The CAA's preemption provisions apply to

vehicles used on roads, such as automobiles and trucks, and to nonroad vehicles, such as tractors. Crucially to this case, the CAA singles out California for special treatment. California is permitted to have its own motor vehicle emissions standards if it applies to EPA for a waiver from federal preemption and makes a showing that it needs the waiver to meet “compelling and extraordinary conditions” in the state. 42 U.S.C. § 7543(e)(2)(a)(ii). This case challenges EPA’s California Nonroad Engine Waiver Decision made on September 20, 2013, on the ground that EPA used an impermissible standard for granting the waiver.

Petitioners take the position that the “need” set forth in the CAA refers to California’s need for the specific standard for which a waiver application is made. EPA contests that position, arguing that the “need” standard applies not to California’s specific need for the particular standard but, rather, California’s need to have its own motor vehicle air emissions program “as a whole.” *See* 74 Fed. Reg. at 32,761. JA—. Those divergent views are at the heart of this case.

The CAA mandates that EPA promulgate regulations implementing the waiver provision at issue here, *see* 42 U.S.C. § 7543(e), and in 1994 EPA promulgated regulations implementing that provision. *See* 59 Fed. Reg. 36,969 (July 20, 1994) (“EPA’s 1994 California Waiver Rule”) JA—. The preamble accompanying the rule states that under CAA section 209(e)(2)(A) California may adopt nonroad standards or requirements for eligible nonroad engines or vehicles before receiving EPA

authorization, but enforcement of such rules is conditioned upon EPA's approval. "California may adopt, but not enforce, nonroad standards prior to EPA authorization." 59 Fed. Reg. at 36,982. JA—. EPA's corresponding regulation, now codified at 40 C.F.R. §§ 1074.101(a), (b), specifies that California must "include the record on which the state rulemaking was based" and that EPA "will provide notice and opportunity for a public hearing regarding such requests." *See also* 59 Fed. Reg. at 36,987 (promulgating original version of regulation, at 40 C.F.R. §§ 85.1604(a), (b)(1994)). JA—.

On March 1, 2012, after a state rulemaking process lasting several years, which included two amendments to the original rules submitted to EPA, the California Air Resources Board ("CARB") requested EPA to authorize CARB's current regulations, which require substantial reductions of particulate matter ("PM") and oxides of nitrogen ("NOx") emissions from in-use nonroad diesel fueled equipment (the "Nonroad Engine Waiver Request"). *See generally* 78 Fed. Reg. at 58,093. JA—.

EPA entertained comments on CARB's Nonroad Engine Waiver Request, 77 Fed. Reg. 50,500 (Aug. 21, 2012), JA—, and held a public hearing on September 20, 2012. 78 Fed. Reg. at 58,093, JA—. Comments were received from the California Petitioners and ARBTA during this time. *See id.* at 58,094 n.29 (listing written comments) JA—; *see also* EPA-HQ- OAR-2008-0691 (EPA's ORD Decision

docket; Sept. 20, 2013 EPA public hearing) (hereafter, “ORD Decision docket 0691-xxxx”).¹ JA—.

On September 20, 2013, EPA granted CARB’s request for waiver of authorization of California’s Nonroad Engine Rules, finding that the grounds needed to grant the waiver under CAA section 209(e)(2)(A), 42 U.S.C. § 7543 (e)(2)(A), had been met. 78 Fed. Reg. at 58,091, 58,097, 58,111-19. JA—. EPA further determined that its action was one of “national applicability” for purposes of CAA section 307(b)(1), 42 U.S.C. § 7607(b)(1)². 78 Fed. Reg. at 58,121. JA—.

CARB’s rules establish statewide performance standards applicable to any person, business, or government agency that owns and/or operates in-use non-road diesel vehicles in California with a maximum horsepower (“hp”) of 25 hp or greater. 78 Fed. Reg. at 58,091. JA—. While specific elements of the Nonroad Engine Rules have changed since they were first presented to EPA for approval in 2008, a summary by CARB staff at that time still holds true:

The scope of the regulation is far-reaching: vehicles of dozens of types used in over 8,000 fleets, in industries as diverse as construction, air travel, manufacturing, landscaping, and ski resorts The regulation

¹ All EPA administrative docket entries cited in this motion are available via the publicly-accessible federal website, www.regulations.gov, with “EPA-HQ-OAR-2008-0691” entered as the search term.

² Apparently for the first time in its waiver history, EPA’s oddly worded action combines the “nationally applicability” substance of § 307(b)(1)’s first sentence with the “finds and publishes” procedure of § 307(b)(1)’s third sentence.

would affect the warehouse with one diesel forklift, the landscaper with a fleet of a dozen diesel mowers, the county that maintains rural roads, the landfill with a fleet of dozers, as well as the large construction firm or government fleet with hundreds of diesel loaders, graders, scrapers, and rollers.

ORD Decision docket 0691-0002 at 1. JA—.

By its terms, the Nonroad Engine Rules apply to engines used in fleets of nonroad vehicles, defined, *inter alia*, as vehicles that cannot be registered and driven safely on-road, or vehicles that were not designed to be driven on-road, even if modified so they can be driven on-road safely. ORD Decision docket 0691-0292, at 1 (CARB Final Regulation Order, promulgating Cal. Code Regs. tit. 13, § 2449(b)(1)). JA—. ³

Importantly, the Nonroad Engine Rules require PM and NO_x reductions for qualifying fleets on a phased-in basis, with reductions imposed on large fleets (defined as fleets with a total horsepower greater than 5,000 hp) in 2014, medium fleets (between 2,500 and 5,000 hp) in 2017, and small fleets (2,500 hp or less) in 2019. ORD Decision docket 0691-0292, at 40-42 (promulgating Cal. Code Regs. tit. 13, § 2449.1(a) & Tables 3-4) JA—.

³ Specific categories of diesel fleets are excluded from the ORD Fleet Requirements, including, *inter alia*, recreational off-highway vehicles, husbandry implements, vehicles used solely for agriculture, and “off-road vehicles owned and operated by an individual for personal, non-commercial, and non-governmental purposes.” ORD Decision docket 0691-0292, at 2 (promulgating Cal. Code Regs. tit. 13, § 2449(b)(2)(G)).

The Nonroad Engine Rules apply to any qualifying vehicles operating within California. The rules define “fleet” as “all off-road vehicles and engines owned by a person, business or government agency that are operated within California and are subject to the regulation. A fleet may consist of one or more vehicles. A fleet does not include vehicles that have never operated in California.” ORD Decision docket 0691-0292, at 5 (promulgating Cal. Code Regs. tit. 13, § 2449(c)(20)). JA—. Both older and “new fleets”—the latter, defined as a fleet “that is acquired or that enters California on or after January 1, 2012”—are covered by the rule. ORD Decision docket 0691-0292, at 8 (promulgating Cal. Code Regs. tit. 13, § 2449(c)(34)). JA—. New fleets “may include new businesses or out-of-state businesses that bring vehicles into California for the first time on or after January 1, 2012.” *Id.*

At EPA’s September 2012, public hearing on CARB’s waiver application, a CARB official (Eric White, Assistant Chief, CARB Mobile Source Control Division) stated that:

The regulation applies equally to all equipment that is operated in the state, regardless of where the fleet is located. So if you are a fleet that is wholly contained within the State of California, all of your equipment would be subject to this regulation. If you’re a fleet that is a multi-state, has a multi-state presence, only the equipment that you would operate within the state of California would be subject to this regulation.

ORD Decision docket 0691 at 122-23 (Sept. 20, 2012 public hearing transcript). JA—. EPA granted the waiver request on September 20, 2013. 78 Fed. Reg. 58,090, *et seq.* These consolidated actions followed EPA's waiver grant.

SUMMARY OF ARGUMENT

Because the Nonroad Engine Rules apply only to equipment operated in California, they are of regional or local applicability and not of national applicability. Accordingly, this case should not be decided by this Court but by the Ninth Circuit. 42 U.S.C. § 7607(b)(1) (“A petition for review of . . . any . . . final action of the Administrator under this chapter . . . which is locally or regionally applicable may be . . . [decided] *only* in the United States Court of Appeals for the appropriate circuit.”) (Emphasis added). On behalf of its non-California members, ARTBA argues that the California rules' declining annual emission-rate standards make it impossible for states other than California to opt into this particular California standard, within the Clean Air Act's requirements for opt-in states' identity to the California Standards with a two-year leadtime. 42 U.S.C. § 7543(e)(2)(B). To the extent that this Court retains jurisdiction and resolves the merits without addressing ARTBA's question about non-California states, this Court should transfer ARTBA's petition to the United States District Court for the District of Columbia because the Clean Air Act's “special statutory review” is unavailable or inadequate. 28 U.S.C. § 1631. Both the California

Petitioners and ARTBA agree, however, that because California is located in the Ninth Circuit's jurisdiction, that is the only appropriate venue for this action.

In the event this Court does not transfer the case to the Ninth Circuit for merits review, the Court should vacate EPA's California Nonroad Engine Waiver Decision and remand it to the Agency. Section 209(e)(2)(A)(ii) of the CAA provides that EPA may authorize California to adopt and enforce on a case-by-case basis standards for nonroad engines and vehicles that differ from the federal ones, but "no such authorization shall be granted if [EPA] finds that . . . California does not need such California standards to meet compelling and extraordinary conditions." Thus (1) California must apply for a waiver from federal standards for each nonroad mobile source emission standard it seeks to enforce, and (2) EPA may not grant any waiver application unless California makes a showing that it has "compelling and extraordinary conditions" necessitating the standards for which waiver is sought.

The record does not show that California needs the Nonroad Engine Rules to meet compelling and extraordinary conditions in the state. Accordingly, the CAA prohibits EPA from granting the waiver application.

EPA takes the position that California's "need" for any particular emissions standard refers not to the need for the standard itself, but to the "need" for California to have its own motor vehicle air emissions program "as a whole." *See* 74 Fed. Reg. at 32,761. JA—.

Such an interpretation is impermissible under the CAA.

Section 209(e)(2)(A)(ii) refers to California's need for the particular standard for which a waiver application is made. "Congress intended the word 'standard' in section 209 to mean quantitative levels of emissions." *Motor and Equip. Mfrs. Ass'n, Inc. v. Environmental Protection Agency*, 627 F.2d 1095, 1112-13 (D.C. Cir. 1979) ("*MEMA P*") (citing Senate Report on Air Quality of 1967, S. Rep. No. 403, 90th Cong., 1st Sess. 32 (1967)). JA—. There is no indication in the Act that by using the term "standard" Congress really meant "program." As stated by the Supreme Court with specific reference to Section 209, "a standard is a standard" and not something else.⁴ *Engine Mfrs. Ass'n v. S. Coast Air Quality Mgmt. Dist.*, 541 U.S. 246, 254 (2004). EPA did not make its waiver decision based on California's need for the standards set forth in the Nonroad Engine Rules. Rather it made the waiver decision based upon whether California needs its own motor vehicle regulatory program "as a whole." In so doing, EPA used the wrong test to grant the waiver. Accordingly, EPA's waiver decision should be vacated and remanded, with instructions to use the test actually authorized by the CAA.

⁴ The Supreme Court further construed the term "standards" as used in Section 209 to "denote . . . numerical emissions levels with which vehicles or engines must comply." *Engine Mfrs.*, 541 U.S. at 253. *See Adamo Wrecking Co. v. United States*, 434 U.S. 275, 286 (1978) ("standard" means a quantifiable level of emissions to be attained by the use of techniques, controls, and technology).

STANDARD OF REVIEW

The Court sets aside agency action or inaction when (1) the agency fails to comply with a nondiscretionary statutory duty, *Bennett v. Spear*, 520 U.S. 154, 172 (1997); (2) the agency action is “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law” or “without observance of procedure required by law,” 5 U.S.C. § 706, 42 U.S.C. § 7607(d)(9); or (3) the action contradicts congressional intent, *Chevron, U.S.A., Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837, 843 n.9 (1984).

STANDING

Declarations of the Petitioners are submitted herewith. Petitioner Delta Construction Company, Inc. (“Delta”), owns and operates a business that utilizes non-road vehicles powered by diesel engines subject to the CARB Nonroad Engine Rules. Norman Brown Decl. ¶¶ 3, 5. JA—. Delta is a member of the California Construction Trucking Association. *Id.* ¶ 2.

Before EPA made its California Nonroad Engine Waiver Decision, CARB could not enforce the rule. *Id.* at ¶ 6. Because of EPA’s California Nonroad Engine Waiver Decision, CARB can enforce the rule. *Id.*; 59 Fed. Reg. at 36,982. JA—. Delta is concretely injured by the rule because the rule requires Delta to purchase expensive retrofit equipment in order to comply with the emissions standards set forth in the rule. Norman Brown Decl. ¶ 6. If Delta had the capital or credit necessary to

purchase the new retrofit equipment for all of its vehicles subject to the rule, it would do so. *Id.* at ¶ 8. But Delta does not have the capital or the credit required to purchase for all of its vehicles the expensive new equipment mandated by the CARB Nonroad Engine Rules. *Id.* At the same time, Delta is prohibited from operating its off-road diesel vehicles without retrofitting them in compliance with the rules. *Id.*

Because the cost of retrofitting is prohibitive, Delta was forced to take out of service a number of nonroad vehicles, in order to get below the current applicability threshold of 5,000 horsepower, resulting in the instant destruction of the value of the equipment, a decrease in Delta's ability to maintain its former workload, and a consequent loss of profit reflected on its balance sheet. *Id.* at 9. As a result, Delta's ability to borrow money to support even the reduced current operations has been severely damaged. *Id.* Because of the reduction in horsepower capacity, Delta has also been forced to refrain from bidding on new jobs that require the additional capacity, resulting in layoffs of experienced and valuable employees. *Id.*

Even with the decrease in total horsepower capacity and consequent loss of profits, employees, and business opportunities stemming from the rules, Delta will be subject to the full retrofit requirements in 2019, when the phase-in period terminates and all of Delta's nonroad equipment will be covered by the rules. *Id.* at ¶ 10. Because its business prospects have been severely damaged by the rules, Delta will not be able to afford the retrofits required in 2019. As a result, Delta will be forced

either to go out of business or find ways of cutting costs in other areas by further changing or reducing its business activities. *Id.* In either event, this will likely mean layoffs of employees, and a negation or reduction of profitability. *Id.*

These adverse impacts have injured and will continue to injure Delta, as long as EPA's California Nonroad Engine Waiver Decision (sometimes referred to as "EPA's Waiver Grant") remains effective and in place. *Id.* ¶ 11. If EPA's Waiver Grant were to be vacated, Delta would no longer be injured by the cost increases attributable to the CARB Nonroad Engine Rules because CARB would no longer be authorized to enforce them. Accordingly, Delta would no longer suffer the economic losses caused by EPA's Waiver Grant. *Id.* ¶ 12.

Petitioner Dalton Trucking, Inc. is also concretely injured by EPA's waiver grant for the Nonroad Engine Rule because the rule requires Dalton to purchase expensive retrofit equipment, if it is to stay in business, in order to comply with the rule's emissions standards. Klenske Decl. ¶ 5-6; JA—. Dalton is a member of the California Construction Trucking Association, Inc. *Id.* ¶ 2.

Dalton is injured by the rule and the waiver grant because Dalton will incur additional costs to purchase the retrofit equipment for its existing vehicles or will be required to take them out of service. *Id.* at ¶ 7. As a result, Dalton will lose operating funds and borrowing ability, resulting in reduction in profitability, cash flow problems affecting business operations, and possible layoffs of employees, all of which will

adversely impact Dalton's Business. *Id.* These adverse impacts have injured and will continue to injure Dalton as long as EPA's Waiver Grant remains effective and in place. *Id.* ¶ 8. If EPA's Waiver Grant were to be vacated, Dalton would no longer be injured by the cost increases attributable to the CARB Nonroad Engine Rules because CARB would no longer be authorized to enforce them. *Id.* ¶ 9. *See* 59 Fed. Reg. at 36,982. Accordingly, Dalton would no longer suffer the economic losses caused by EPA's Waiver Grant. *Id.*

Petitioner California Construction Trucking Association, Inc., ("CCTA") is a trade association representing businesses and individuals concretely injured by the rule and the waiver grant in that they utilize nonroad vehicles in their businesses. The vehicles are subject to the rule's emissions standards and CCTA's members are now required to purchase expensive retrofit equipment in order to comply with the emissions standards set forth in the rule. Lee Brown Decl. ¶¶ 3, 5. JA—. CCTA members are injured by the rule because they either incur additional costs to purchase the expensive new retrofits for the equipment they use in their businesses or are required to take the equipment out of service. *Id.* at ¶ 7.

For CCTA members that have the cash or credit to purchase the expensive retrofits, they are injured because they lose operating funds and borrowing ability, resulting in reduction of profitability, severe cash flow problems affecting business operations, and layoffs of employees. *Id.* Other members cannot afford to install the

expensive retrofits mandated by the rules and have been forced to take out of service a number of nonroad vehicles, in order to get below the current applicability threshold of 5,000 horsepower, resulting in the instant destruction of the value of the equipment, a decrease in their ability to maintain their former workload, and a consequent loss of profit reflected on their balance sheets. *Id.* ¶ 8. As a result, they will either go out of business or find ways of cutting costs in other areas by further changing or reducing their business activities. *Id.* In either event, this will mean further layoffs of employees, a negation or further reduction of profitability, and, in some cases, business shutdowns. *Id.* These adverse impacts have injured and will continue to injure the members of CCTA, as long as the waiver grant remains effective and in place. *Id.* ¶ 9. If EPA's Waiver Grant were to be vacated, the members of CCTA would no longer be injured by the cost increases attributable to the CARB rules because CARB would no longer be authorized to enforce them. *Id.* ¶ 10. *See* 59 Fed. Reg. at 36,982. Accordingly, CCTA members would no longer suffer the economic losses caused by EPA's Waiver Grant. *Lee Brown Decl.* ¶ 10.

One of the missions of CCTA is to preserve and foster regulatory programs that encourage the use of business equipment for the duration of its useful life without the need for stringent retrofits or replacements. To that end, CCTA has been forced to expend its resources on challenging EPA's Waiver Grant. *Id.* ¶ 11. These are resources that CCTA could have devoted to accomplish its other missions, such as

representing the interests of its members in a variety of other contexts, including legislative and regulatory reforms to benefit its members in a variety of ways, such as encouraging, among other things, highway and infrastructure repair for the safety of CCTA members. *Id.* The channeling of resources away from accomplishing those important goals of CCTA has directly injured CCTA as an organization. *Id.* That injury will be redressed if EPA's Waiver Grant is vacated because CCTA will no longer be required to devote any resources to challenging or encouraging amendment or repeal of the CARB rules. *Id.*

These adverse impacts have injured and will continue to injure the members of CCTA, as long as EPA's Waiver Grant remains effective and in place. *Id.* ¶ 8. If EPA's Waiver Grant were to be vacated, the members of CCTA would no longer be injured by the cost increases attributable to the CARB Off-Road Diesel Rules because CARB would no longer be authorized to enforce them. Accordingly, the members of CCTA would no longer suffer the economic losses caused by EPA's Waiver Grant. *Id.* ¶ 9. *See* 59 Fed. Reg. at 36,982.

If any one of the Petitioners has standing, the case may proceed.⁵ *Americans for Safe Access v. Drug Enforcement Administration*, 706 F.3d 438, 443 (D.C. Cir.

⁵ To the extent that ARBTA must establish its standing independently of the California Petitioners, ARBTA has members outside California who would benefit in the form of avoided retrofit costs if this Court rules that Non-California states cannot opt into the California retrofit rules. Declaration of Lawrence J. Joseph, ¶¶ 4-13; *ARBTA v. EPA*, 588 F.3d 1109, 1111-12 (D.C. Cir. 2009).

2013). Accordingly, this challenge to the waiver grant presents a “case or controversy” under Article III of the United States Constitution. *See* D.C. Cir. Rule 28(a)(7).

ARGUMENT

I

THIS COURT IS NOT THE PROPER VENUE FOR THESE PETITIONS FOR REVIEW

These cases challenge EPA’s California Nonroad Engine Waiver Decision. The CAA provides that if the decision is of national applicability, the challenge must be filed “*only* in the United States Court of Appeals for the District of Columbia.” 42 U.S.C. § 7607(b)(1). (Emphasis added.) But if the decision is merely “locally or regionally applicable,” petitions for review “may be filed *only* in the United States Court of Appeals for the appropriate circuit,” unless EPA’s “action is based on a determination of nationwide scope or effect *and* if in taking such action [EPA] finds and publishes that such action is based on such a determination.” *Id.* (Emphasis added). Although EPA made and published a finding of “national applicability” in its waiver notice, 78 Fed. Reg. at 58,121,⁶ both the California Petitioners and ARTBA argue that the EPA waiver and the underlying California rules make this Court an improper venue under § 307(b)(1). The EPA decision at issue here applies solely in

⁶ As indicated in note 2 *supra*, EPA did not actually make the finding of “nationwide scope or effect” required by § 307(b)(1)’s third sentence.

California, because it approves California's Nonroad Engine Waiver Request which both legally and factually applies only in California.

A. EPA's Findings Under Section 307(b)(1) Are Reviewable

The mere expression of EPA's conclusion that venue is proper in this Court is insufficient, and the mere fact EPA made a determination does not, of itself, mean that the determination is correct. To hold otherwise would run afoul of the well established principle that judicial review of agency action is presumed. *Abbott Labs. v. Gardner*, 387 U.S. 136, 141 (1967) ("[O]nly upon a showing of 'clear and convincing evidence' of a contrary legislative intent should the courts restrict access to judicial review." (citation omitted)); see *Oregon Natural Res. Council v. U.S. Forest Service*, 834 F.2d 842, 851 (9th Cir. 1987) (judicial review inferred unless clearly cut off by Congress).

Under § 307(b)(1), review of the California Nonroad Engine Waiver Decision must take place either in the Ninth Circuit or here. Whether it presents a question of jurisdiction or merely of venue, § 307(b)(1) presents a justiciable question that this Court must address before proceeding to the merits. First, jurisdictional questions are antecedent to merits questions, *Steel Co. v. Citizens for a Better Env't*, 523 U.S. 83, 118 (1998) (citing *U.S. v. Mine Workers*, 330 U.S. 258, 290 (1947)), which the parties cannot waive. *Id.* at 94 (citing *Ex parte McCardle*, 74 (7 Wall.) U.S. 506, 514 (1869)). Second, even questions of venue must be resolved unless the party objecting

to venue fails to raise it “seasonably.” *Panhandle Eastern Pipe Line Co. v. Federal Power Comm’n*, 324 U.S. 635, 638-39 (1945). Indeed, like jurisdiction, venue under § 307(b)(1) is mandatory and requires dismissal (or transfer) if venue is improper in this Court. *Am. Rd. & Transp. Builders Ass’n v. EPA*, 705 F.3d 453, 455-56 (D.C. Cir. 2013). For present purposes, therefore, it does not appear to matter whether § 307(b)(1) goes to jurisdiction or merely to venue.

EPA does not appear to dispute that this action belongs in the Ninth Circuit under § 307(b)(1)’s second sentence unless EPA successfully invoked § 307(b)(1)’s third sentence to shift review here. That third sentence uses the word “and” twice. The action must be based on a determination of nationwide scope or effect, *and* EPA must find *and* publish that its action is based on such a determination. To read the statute, these “ands” must be read conjunctively. *See Crooks v. Harrelson*, 282 U.S. 55, 58 (1930); *OfficeMax, Inc. v. U.S.*, 428 F.3d 583, 584 (6th Cir. 2005) (“traditional presumption that Congress uses ‘and’ conjunctively”); 1A Norman J. Singer, *Statutes and Statutory Construction* 21.14 at 178-79 (7th Ed. 2009). That second “and” means that it is not enough for EPA merely to publish a nationwide-scope-or-effect statement; there has to be an underlying finding, and that EPA action—like all agency action—is presumptively reviewable. *Dunlop v. Bachowski*, 421 U.S. 560, 567 (1975); *Heckler v. Chaney*, 470 U.S. 821, 830 (1985). Here, nothing rebuts that

presumption of reviewability, and this Court is not bound by whatever EPA asserts in the Federal Register.

Indeed, several courts of appeal have provided review on the question of which circuit represents the appropriate circuit for review under § 307(b)(1). *See, e.g., New York v. EPA*, 133 F.3d 987, 990 (7th Cir. 1998); *ATK Launch Sys., Inc. v. U.S. EPA*, 651 F.3d 1194, 1197 (10th Cir. 2011); *Madison Gas & Elec. Co. v. U.S. EPA*, 4 F.3d 529, 530-31 (7th Cir. 1993). Accordingly, this Court can and must answer the question—whether jurisdictional or merely related to venue—of what court is the appropriate court to hear this case.

As explained in Section I.C.4, *infra*, as a matter of law EPA has no supportable bases for concluding that the California Nonroad Engine Waiver Decision triggered § 307(b)(1)'s third sentence. Abuses of discretion based on mistaken legal conclusions are not only reviewable but reviewable de novo. *Cooter & Gell v. Hartmarx Corp.*, 496 U.S. 384, 405 (1990). Accordingly, there is no barrier to reviewing which court—this one or the Ninth Circuit—should hear this case.

**B. This Court Should Transfer This Case To
The Ninth Circuit Because the EPA Waiver
Decision Applies Only in the State of California**

The EPA decision at issue here applies solely in California, because it approves California's Nonroad Engine Waiver Request. But the CAA provides that other states may adopt a California motor vehicle emissions standard when EPA grants a waiver

to California for that standard. 42 U.S.C. § 7543(e)(2)(B). Because EPA has granted a waiver to California for its Nonroad Engine Rules, which are at issue here, there is an issue of whether the rule is of national or of regional applicability.

Because the CAA's 60-day filing deadline is jurisdictional, the California Petitioners protectively filed petitions for review both in this Court (Case No. 13-1283) and in the Ninth Circuit (Case No. 13-74019). In an Order dated February 4, 2014, this Court granted an unopposed motion to hold Case No. 13-1283 (and its consolidated case, 13-1287) in abeyance, in order to allow the Ninth Circuit to rule on the Federal Respondent's motion to dismiss filed in the Ninth Circuit. Document # 1478151.

The briefing on the motion to dismiss in the Ninth Circuit has been completed, but the Ninth Circuit has not made a determination regarding that motion. Rather, on March 11, 2014, the Ninth Circuit *sua sponte* ordered that the motion to dismiss be held in abeyance "pending a determination by the United States Court of Appeals for the District of Columbia Circuit as to whether petition Nos. 13-1283 and 13-1287 were properly filed in that court pursuant to 42 U.S.C. § 7607(b)(1)." This Court ordered that the venue issue be addressed by the parties in the briefing on the merits.

The California Petitioners ask this Court to transfer these consolidated cases to the Ninth Circuit for resolution in connection with Case No. 13-74019 pending in that

Circuit. The language of Section 307(b)(1) of the CAA is dispositive. In pertinent part, it states:

A petition for review of . . . any . . . nationally applicable . . . final action taken by the Administrator . . . may be filed *only* in the United States Court of Appeals for the District of Columbia. A petition for review of . . . any . . . final action of the Administrator under this chapter . . . which is locally or regionally applicable may be filed *only* in the United States Court of Appeals for the appropriate circuit. Notwithstanding the preceding sentence a petition for review of any action referred to in such sentence may be filed only in the United States Court of Appeals for the District of Columbia if such action is based on a determination of nationwide scope or effect and if in taking such action the Administrator finds and publishes that such action is based on such a determination.

42 U.S.C. § 7607(b)(1) (emphasis added). The first sentence provides that petitions for review of nationally applicable final actions may be brought only in the D.C. Circuit. Accordingly, in order for this Court to have exclusive jurisdiction, EPA's decision must be, in fact, nationally applicable, and there is no ambiguity on that score. *Chevron, U.S.A., Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. at 842-43 (“First, always, is the question whether Congress has directly spoken to the precise question at issue. If the intent of Congress is clear, that is the end of the matter; for the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress.”).

The second sentence provides that locally or regionally applicable actions may be brought only in the court of appeals for the circuit with jurisdiction over the specific locality or region, while the third sentence modifies the second sentence (but

not the first sentence) by stating that a published EPA determination of national scope or effect brings the venue requirement back into the D.C. Circuit. Because the third sentence does not modify the first sentence, the plain and clear requirement of the first sentence still applies. Namely, decisions that are in fact nationally applicable are the only ones which are required to be challenged exclusively in the D.C. Circuit. Accordingly, it is not sufficient under 42 U.S.C. § 7607(b)(1) for EPA merely to make and publish a finding setting forth its conclusion that its action is of nationwide scope or effect.⁷ The “determination” itself must in fact relate to an issue that is, objectively, one of nationwide scope or effect. Otherwise, EPA could subvert the first sentence merely by making a finding under the third sentence, thereby negating the first sentence. That is impermissible. *Moskal v. United States*, 498 U.S. 103, 109 (1990) (courts must give effect to every clause and word of a statute).

Accordingly, reading the subsection as a whole, the finding described in the third sentence requires that EPA’s “determination” relate to one or more matters whose scope or effect is actually nationwide. *See* Section I.A, *supra*. The facts show that the waiver is not of nationwide scope or effect.

The waiver grant applies only in California. No nonroad vehicles operating outside of California need comply with the California standards. No other state is

⁷ As indicated in note 2, *supra*, EPA did not actually make the finding of nationwide scope or effect that § 307(b)(1)’s third sentence requires.

required to adopt the California standards. An observation made by a CARB official at a public hearing held on the waiver application confirms:

So if you are a fleet that is wholly contained within the state of California, all of your equipment would be subject to this regulation. If you're a fleet that is a multi-state, has a multi-state presence, only the equipment that you would operate within the state of California would be subject to this regulation.

Off-Road Diesel Decision docket 0691, at 122-23 (Sept. 20, 2012 public hearing transcript). JA—. Accordingly, the criterion required to trigger the applicability of the first sentence has not been met because the waiver decision is not in fact nationally applicable.

Notwithstanding the foregoing admission by a CARB official during a hearing on the waiver application, EPA made a finding that the granting of the waiver application has effect not only beyond the State of California but that it is of nationwide scope or effect. EPA provides no defensible support for its finding other than a bare conclusion that the grant waiver “will indirectly affect” some outside of California:

My decision will indirectly affect . . . entities outside the state who must comply with California's requirements. For this reason, I determine and find that this is a final action of national applicability for purposes of section 307(b)(1) of the Act. Pursuant to section 307(b)(1) of the Act, judicial review of this final action may be sought only in the United States Court of Appeals for the District of Columbia Circuit. Petitions for review must be filed by November 19, 2013. Judicial review of this final action may not be obtained in subsequent enforcement proceedings, pursuant to section 307(b)(2) of the Act.

78 Fed. Reg. 58,090, 58,121 (Sept. 20, 2013). JA—. Based on its unsubstantiated determination, EPA asserts that challenges to the waiver grant may only be brought in the D.C. Circuit. An administrative agency is not, and cannot be, the final arbiter of which courts have jurisdiction to review decisions made by the agency. *Weinberger v. Salfi*, 422 U.S. 749, 750-51 (1975) (court determines jurisdictional issues); *Kaufman v. Allstate New Jersey Ins. Co.*, 561 F.3d 144, 151 (3d Cir. 2009) (court of appeals determines jurisdictional issues de novo).

Accordingly, the substantive issue for this Court is whether the waiver grant is, in fact, nationally applicable under the first sentence of 42 U.S.C. § 7607(b)(1).

1. The Waiver Grant Is Not Nationally Applicable

The grant of the waiver application here affects CARB and those who operate equipment covered by the Nonroad Engine Rules. As EPA acknowledged:

The decision to grant or deny the authorization request directly affects the legal rights of the party before EPA, California. If EPA grants the authorization, then CARB may enforce its state regulations. Other parties, for example, the fleet operators, may be indirectly affected because state regulation is no longer preempted.

78 Fed. Reg. at 58,121. JA—. Thus, the waiver grant impacts CARB and those who operate equipment in California subject to the regulation. Those who do not operate covered equipment in California are not impacted by the regulation. The plain meaning of a “nationally” applicable action is that the action applies nationally. *See Perrin v. United States*, 444 U.S. 37, 42 (1979) (Unless otherwise defined, words are

construed “as taking their ordinary contemporary, common meaning.”). The action at issue here does not affect the nation because it only affects CARB and those who are subject to its regulations, namely, operators of nonroad diesel engines in California. It is true that fleet operators outside of California may choose to subject themselves to the requirements if they undertake to operate such equipment in California. But nothing requires them to do so. The mere possibility that some may choose to do so does not, of itself, make the waiver decision nationally applicable.

Similarly, although the parties dispute whether non-California states may lawfully adopt these particular California standards, it is factually indisputable that other states had not done so at the time of EPA’s finding (or yet). But whether or not other states adopt these California standards at some point in the future is irrelevant to the question of whether EPA’s waiver grant is itself nationally applicable. Whether other states may choose to adopt the California standard for which the waiver was granted is currently unknowable. Speculation regarding such possible adoptions by other states does not make the California emission standard applicable nationally.

This Court has taken the position that the face of the regulation determines national applicability. *Natural Res. Def. Council, Inc. v. Thomas*, 838 F.2d 1224, 1249 (D.C. Cir. 1988). The Tenth Circuit concurs. *See ATK Launch Sys., Inc.*, 651 F.3d at 1197 (“[T]he Clean Air Act provision makes clear that [courts] must analyze whether the regulation itself is nationally applicable, not whether the effects

complained of . . . is (sic) nationally applicable.”). Moreover “[d]etermining whether an action by the EPA is regional or local on the one hand or national on the other should depend on the location of the persons or enterprises that the action regulates.” *State of New York v. EPA*, 133 F.3d 987, 990 (7th Cir. 1998). Here, the only “persons or enterprises that the action regulates” are those who choose to do business in California by operating covered equipment within the state. No other person, activity, enterprise, or equipment is impacted.

For an administrative action to be “nationally applicable,” it must be applicable to more than one limited geographic area. *ATK Launch Sys.*, 651 F.3d at 1197 (regulation applicable “coast to coast and beyond” is nationally applicable); *State of Texas v. EPA*, No. 10-60961, 2011 WL 710598, at *3 (5th Cir. Feb. 24, 2011) (EPA’s SIP call applicable to 13 states located throughout the nation and not limited to a contiguous geographic area is nationally applicable).⁸

2. This Court Has Never Held That California Waiver Decisions Are Categorically Nationally Applicable

It is true that, in the past, this Court has decided some California waiver challenges. *See, e.g., Motor & Equip. Mfrs. Ass’n, Inc. v. EPA*, 627 F.2d 1095 (D.C. Cir. 1979); *Motor & Equip. Mfrs. Ass’n v. Nichols*, 142 F.3d 449 (D.C. Cir. 1998).

⁸ Because this opinion is unpublished, and therefore not precedent even in the Fifth Circuit, it is cited only for its persuasive value. *See* Fed. R. App. P. 32.1(a).

But the specific issue of whether those challenges addressed nationally or regionally applicable final agency actions was never raised and, consequently, has never been, squarely addressed by this Court. *See Waters v. Churchill*, 511 U.S. 661, 678 (1994) (“[C]ases cannot be read as foreclosing an argument that they never dealt with.”).

A recent decision of this Court is relevant to whether the EPA final action here is nationally or regionally applicable. In that case, the petitioner filed petitions for review of EPA’s approval of a California State Implementation Plan (“SIP”) based on the SIP’s allegedly illegal implementation of Section 209(e) of the CAA and EPA’s refusal to amend its regulations thereunder. Because the petitioner was unsure whether the correct court was the D.C. Circuit or the Ninth Circuit, it filed protectively in both courts. The D.C. Circuit held that the EPA determination was of regional and not national applicability and granted the government’s motion to dismiss. *Am. Road & Transp. Builders Ass’n v. EPA*, 705 F.3d 453 (D.C. Cir. 2013). Had the petitioner filed only in the D.C. Circuit, it may have been foreclosed from challenging EPA’s determination in any court, because of the CAA’s 60-day filing requirement. And that is one of the reasons the California Petitioners here filed protectively in both circuits.

To the extent there is any ambiguity as to whether the decision challenged in this case is nationally or regionally applicable, this Court should transfer the case to the Ninth Circuit, for the following reasons.

3. It Is Appropriate for This Court to Transfer This Case to the Ninth Circuit Because the Nexus of the Parties and Subject Matter Is More Closely Aligned to the Ninth Circuit than to This Court

For five reasons, this Court should transfer the case to the Ninth Circuit. First, the subject matter of the litigation and the specific *equipment* covered by the California Nonroad Engine Rules are located exclusively within California and, therefore, exclusively within the Ninth Circuit. Second, the actual *geographic territory* covered by EPA's grant of the waiver application is located exclusively within California and, therefore, exclusively within the Ninth Circuit. Third, CARB, which applied for and was granted the waiver, has jurisdiction only over California air emissions and, accordingly, operates exclusively within the Ninth Circuit. Fourth, the judges of the Ninth Circuit are more familiar with local conditions and issues in California than are the judges of this Court. Fifth, and finally, all of the California Petitioners and their offices, employees, and counsel are located exclusively within the Ninth Circuit. The other petitioner—ARTBA—also has requested transfer, and the intervenor CARB and its offices, employees, and counsel are located in the Ninth Circuit.

C. This Court Should Transfer This Case to the Ninth Circuit Because No Other State Can Opt Into the CARB Nonroad Engines Rules

In addition to the California Petitioners' arguments, ARTBA also argues that EPA's waiver decision cannot be nationally applicable because the rule applies only in California by its terms, and states other than California cannot adopt California's standards under the terms of Clean Air Act § 209(e)(2)(B).

The California Nonroad Engine Rules apply only in California and are therefore not "nationally applicable" under § 307(b)(1)'s first sentence. *See* 42 U.S.C. § 7607(b)(1). The text of the rules is clear that they are applicable only in California:

This regulation applies to any person, business, or government agency who owns or operates within California any vehicles with a diesel-fueled or alternative diesel fueled off-road compression-ignition engine[.]

13 Cal. Code Regs. § 2449(b)(1) (emphasis added); *Am. Trucking Ass'ns, Inc. v. EPA*, 600 F.3d 624, 628 (D.C. Cir. 2010) (rejecting as "weak" the suggestion that a CARB rule established de facto national standards because "many trucks pass through California"). The only real question is whether EPA successfully invoked § 307(b)(1)'s third sentence to move jurisdiction or venue to this Circuit.

Instead of finding that the California Nonroad Engine Waiver Decision had "nationwide scope or effect" as § 307(b)(1)'s third sentence requires, EPA found that it was a "final action of national applicability." 78 Fed. Reg. at 58,121. It is unclear whether the "national applicability" finding meets the criteria of § 307(b)(1)'s third

sentence. Assuming *arguendo* that it successfully invoked that third sentence, EPA is the party seeking to avail itself of the third sentence's exception to the second sentence and thus bears the burden of proving its entitlement to the exception. *FTC v. Morton Salt Co.*, 334 U.S. 37, 44-45 (1948); *Meacham v. Knolls Atomic Power Lab.*, 554 U.S. 84, 91-92 (2008). In briefing ARTBA's and the California Petitioners' motions to transfer, EPA identified several potential bases for jurisdiction's and venue's properly lying in this Circuit:

- EPA has consistently treated its approvals of CARB vehicle emission regulations as actions of national applicability, and the D.C. Circuit has consistently accepted jurisdiction concerning these approvals.
- Non-California fleet operators allegedly will be required to comply with California's standards when operating a qualifying nonroad diesel vehicle in the State.
- Non-California states may now adopt standards identical to California's without obtaining further EPA approval.

While EPA may not stick to these arguments in its merits briefing here, ARTBA responds to these three arguments in Sections I.C.2-4, *infra*. In addition, Section I.C.1, *infra* also rebuts an additional argument that EPA has not made yet. Because none of these arguments provide a basis for review in the D.C. Circuit, this Court is not the proper venue. None of those arguments survives scrutiny.

**1. The Rule's Impact on Non-California
Manufacturers and Service Providers Does
Not Make the Rule Nationally Applicable**

Until relatively recently, CARB's mobile-source standards applied only to new vehicles and engines, which provided a suitable time to impose emission standards: namely, when the manufacturer designed the vehicle. Colloquially, a California vehicular-emission standard necessarily affected "Detroit," meaning the national manufacturers—based outside California—that would sell new vehicles in California. In-use standards like the Nonroad Engine Rules are a recent phenomenon, vis-à-vis new-vehicle standards, and these in-use standards raise new and different issues.

With respect to new-vehicle standards, EPA historically has made findings to the following effect:

My decision will affect not only persons in California, but also manufacturers outside the State who would have otherwise had to comply with California's requirements in order to produce new motor vehicles for sale in California. In addition, because other states have adopted or may adopt California's GHG program for new motor vehicles—which is allowed if certain criteria under section 177 of the Act are met, this decision will also affect those states and those persons in such states. For these reasons, I determine and find, as in past waiver decisions, that this is a final action of national applicability for purposes of section 307(b)(1).

73 Fed. Reg. 12,156, 12,169 (Mar. 6, 2008) (emphasis added). With in-use retrofit standards, there is no set of nationwide manufacturers that are analogous to the firms that manufacture new vehicles and engines. If the retrofit market constituted a

nationwide market, EPA could nationalize any local rule or order, even for stationary sources (*e.g.*, a determination of best available control technology for a smokestack scrubber).

In light of the real difference between the new in-use standards and the new-vehicle standards typically addressed in prior EPA waivers, EPA's decision to modify its typical § 307(b)(1) finding for the California Nonroad Engine Waiver Decision represents a positive (and correct) administrative decision, not mere bureaucratic oversight. Quite simply, these in-use and retrofit waivers are different from the more typical new-vehicle waivers that previously arose under § 209. When the facts inputted into a decision process change, the results outputted often change as well.

2. The Consistent Practices of EPA and the D.C. Circuit on Prior Waivers Do Not Establish Jurisdiction Over This Waiver

Returning to the arguments that EPA actually pressed so far, the weakest by far is the argument based on EPA's and the D.C. Circuit's consistent practices. As explained in the prior section, most of those prior instances were different, which would easily explain a different result here. In any event, "cases cannot be read as foreclosing an argument that they never dealt with," *Waters v. Churchill*, 511 U.S. at 678, which precludes treating this Court's prior actions accepting jurisdiction or venue that no party questioned as relevant here: "drive-by jurisdictional rulings of

this sort . . . have no precedential effect.” *Steel Co.*, 523 U.S. at 91; *Cooper Indus., Inc. v. Aviall Serv., Inc.*, 543 U.S. 157, 170 (2004) (citing *Webster v. Fall*, 266 U.S. 507, 511 (1925)).

3. Whatever Its Indirect Impact on Non-California Construction Fleets, the California Nonroad Engine Rules Remain Regionally Applicable

EPA’s argument that these California standards apply to fleets based outside California, when those fleets operate in California, has two problems. First, an in-state rule that operates on out-of-state fleets that work in-state nonetheless applies only in California. Second, the construction-fleet market’s including some fleets from outside California, particularly on the border regions (*i.e.*, Arizona, Nevada, and Oregon) if border-state fleets operate across the California line, would in no way render the rules nationwide as opposed to regional. *See New York*, 133 F.3d at 990 (allowing review in the Seventh Circuit of a rule that operated in the Seventh Circuit and also the Sixth-Circuit state of Michigan). These two problems are independently fatal to EPA’s basing review in this Circuit on non-California fleets that operate in California.

The first problem has to do with the locus of the regulated activity, which for the rules plainly operate in California.

The language of the Clean Air Act provision makes clear that this court must analyze whether the regulation itself is nationally applicable, not whether the effects complained of or the petitioner's challenge to that regulation is nationally applicable. *ATK Launch Sys.*, 651 F.3d at 1197 (collecting cases); *Natural Res. Def. Council, Inc. v. Thomas*, 838 F.2d at 1249. A rule that acts locally is simply not a nationally applicable rule.

The second problem involves the disconnect between the rules' regional impact on California (potentially including a few neighboring states) versus a national rule. Given that California's border states all are in the Ninth Circuit, the California standards' impact on non-California fleets operating in California still would be regional. Indeed, taking the *New York* invitation (133 F.3d at 990) to include neighboring circuits (*e.g.*, Utah, Colorado, and New Mexico) within § 307(b)(1)'s "region" would make it even more implausible that the rules could qualify as nationally applicable under § 307(b)(1) based only on the its effects on out-of-state fleets. Unlike interstate trucks or locomotives, off-road construction equipment is unwieldy, heavy, and expensive to transport. Moreover, even for interstate trucking, this Court has already rejected as "weak" the suggestion that California standards become de facto national standards simply by regulating in-California actions of trucks that choose to drive there. *Am. Trucking Ass'n*, 600 F.3d at 628. In any event, neither EPA's record nor its finding supports the existence of faraway construction

fleets that bid on and win construction projects in California and then ship equipment across the country to perform the work. “It is well established that an agency’s action must be upheld, if at all, on the basis articulated by the agency itself.” *Motor Vehicle Mfrs. Ass’n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 50 (1983) (“*MVMA*”); *SEC v. Chenery Corp.*, 332 U.S. 194, 196 (1947). Applied here *MVMA* and *Chenery* provide that this Court cannot uphold EPA’s waiver on a basis not supported in the record.

4. Other States Cannot Adopt the California Standards Under § 209(e)(2)(B)

One potentially plausible basis for an EPA finding of “nationwide scope or effect” would be the ability of other states to adopt a California standard, now that EPA has granted a waiver of federal preemption. Indeed, this is the only basis that the California Nonroad Engine Waiver Decision appears to embrace, however indirectly. Unfortunately for EPA, however, California’s standards and opt-in states’ standards must meet different tests regarding the required lead time: Opt-in states’ standards must both be identical to California’s standards and adopted two years before they take effect. Due to particulars of the California Nonroad Engine Rules’ annually declining fleet average, a state simply cannot adopt a rule identical to California’s with that lead time. Accordingly, notwithstanding that non-California states generally may opt into California standards for which EPA has granted a waiver of preemption,

the moving-target nature of *this* California standard makes it impossible for other states to do so while meeting § 209(e)(2)(B)’s lead time and identity requirements.

In the historically typical situation where CARB adopts model-year standards for new vehicles that apply to each vehicle in the affected class, the difference in lead time requirements would not pose a problem. For example, suppose that CARB adopted a unit-specific standard such as a zero-emission forklift for model-year 2015 and subsequent years, and EPA granted the waiver later this year because EPA found that the lead time sufficed for the California market. Other states could not adopt the new model-year 2015 standard immediately, because that would not allow for § 209(e)(2)(B)(ii)’s required two-year lead time. But CARB’s fork-lift standard for model-year 2017 would be the same as the fork-lift standard for model-year 2015, and other states could opt into the California standard for model-year 2017 and subsequent years. By waiting for two years to pass, the adopting state can achieve identity with California’s standard and satisfy the lead time criteria.

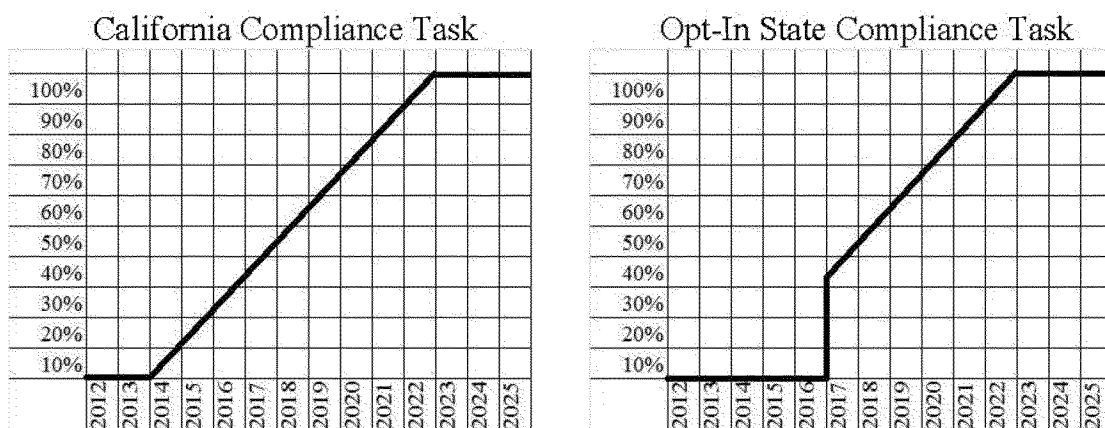
Here, by contrast, the Nonroad Engine Rules already have taken effect, with the declining annual-average, fleet-based emission standards applicable to large fleets in 2014. 13 Cal. Code Regs. § 2449.1(a)(1) (Table 3). JA—. In addition, the Nonroad Engine Rules already ban “Tier 0” and certain “Tier 1” engines. 13 Cal. Code Regs. § 2449(d)(6)(A)-(B). JA—. Insofar as EPA granted the waiver on September 20, 2013, the rules are simply ineligible for adoption by other states because they cannot

meet the requirement that both California and the adopting state “adopt such standards at least 2 years before commencement of the period for which the standards take effect.” 42 U.S.C. § 7543(e)(2)(B)(ii).

Moreover, unlike the hypothetical fork lift standard (which did not decline annually), the Nonroad Engine Rules’ fleetwide averages decline annually, thereby presenting a moving target that will not become “identical” in another state merely because two years have passed. As such, other states cannot adopt the rules later than California and still remain identical—as required by § 209(e)(2)(B)(i)—to the declining annual averages in the California standards. CARB’s Final Statement of Reasons (“FSOR”) repeatedly emphasized the gradual phasing in of the declining fleet average as ameliorating the rule’s infeasibility. *See* CARB, FSOR, at 114 (“the regulation phases in gradually”); JA—; *accord id.* at 159, 180, 226-27, 231, 259. JA—. In the Ninth Circuit, EPA cavalierly equated this adopt-at-midstream facet of the rules’ regulation of fleets of in-use construction equipment with other states’ adoption of California’s Low-Emission Vehicle (“LEV”) Program for on-road vehicles. Initially, the LEV Program set four standards to which manufacturers could certify automobiles—from higher-emitting to lower-emitting, they were TLEVs, LEVs, ULEVs, and ZEVs—and required manufacturers to sell new vehicles that met a declining annual fleet average. *Am. Auto. Mfrs. Ass’n v. Mass. Dep’t of Env’tl. Prot.*, 163 F.3d 74, 78-79 (1st Cir. 1998).

That is completely different from requiring consumers (*i.e.*, not manufacturers) to have their entire in-use fleet (*i.e.*, not annual new-car sales) meet a declining emission standard. Manufacturers simply needed to make the same four types of cars, but sell them in different ratios as the annual fleet average declined (*i.e.*, relatively more ULEVs and ZEVs in later years). In that environment, it would not be particularly challenging for a manufacturer to jump in midstream if a state adopted the LEV Program several years after California did so: the manufacturer already would be making the same cars and would need only to sell the right ratios in the new opt-in state.

By contrast, when opt-in states' in-use fleets need to conform their emissions to the Nonroad Engine Rules, those consumers face an uphill task—indeed, a cliff—that California fleets did not face. The following two charts depict the problem for a hypothetical requirement to electrify ten percent of the fleet each year:



As these two charts demonstrate, the California and non-California standards are not identical: Opt-in states fleets must electrify a third of their fleet in one year.

The same is true for states that propose to opt into the Nonroad Engine Rules at midstream. Fleets in those states would need to accomplish in the first year what the rules allowed California fleets several years to accomplish. That is simply not identical.

As indicated, the California Nonroad Engine Rules are legally ineligible for adoption by other states. As such, to the extent that EPA pinned its finding of national applicability on the ability of other states to opt into the rules, EPA erred as a matter of law, and the Nonroad Engine Rules remain regionally applicable.

**D. If It Can Resolve the Petitions for Review
Without Addressing ARTBA's Arguments,
This Court Should Transfer ARTBA's Petition
To The District Court Under 28 U.S.C. § 1631**

ARTBA's venue-related arguments admittedly implicate merits questions about Clean Air Act preemption vis-à-vis non-California states, but not merits questions about Clean Air Act preemption vis-à-vis the specific EPA waiver before the Court. As such, in the absence of the transfer issue, it is possible that this Court could affirm the EPA waiver, without even addressing the question whether non-California states may opt into these California standards.⁹ Given that EPA preemption rules (which ARTBA does not challenge) call for non-California states to opt into California standards without an action reviewable by EPA, 40 C.F.R. § 1074.110(a)(1), ARTBA

⁹ Of course, if this Court vacates EPA's waiver, there will be no California standards for another state to adopt.

would not have a future opportunity to litigate this issue against EPA under Clean Air Act § 307(b)(1)'s special statutory review.

When a statute provides special statutory review such as § 307(b)(1), that review displaces general review under the Administrative Procedure Act (“APA”). 5 U.S.C. § 703. Of course, that bar to APA review applies only if the statutory review is adequate (*i.e.*, APA review applies “in the absence or inadequacy” of the “special statutory review proceeding relevant to the subject matter”), *id.*, and statutory review plainly would be inadequate here if the Court sidesteps the issues that ARTBA presents. For that reason, if it denies transfer to the Ninth Circuit and reaches the California Petitioners’ merits question, this Court should sever these cases and transfer ARTBA’s petition to the United States District Court for the District of Columbia under 28 U.S.C. § 1631. That procedure would ensure that the question ARTBA raises is not only answered, but answered in this Circuit, with any appellate review in this Court.

II

EPA APPLIED AN INCORRECT STANDARD IN GRANTING THE CARB WAIVER APPLICATION

Should this Court decide not to transfer these consolidated cases to the Ninth Circuit, or transfer ARBTA’s petition to the district court, the EPA Waiver Decision should be vacated and remanded by this Court, for the reasons set forth in this section.

Section 209(e)(2)(A)(ii) of the Clean Air Act provides that EPA may authorize California to adopt standards for nonroad engines and vehicles, but that “no such authorization shall be granted if [EPA] finds that . . . California does not need such California standards to meet compelling and extraordinary conditions.” California must apply for waivers from federal standards on a case-by-case basis. *Motor and Equip. Mfrs. Ass’n, Inc. v. Environmental Protection Agency*, 627 F.2d at 1111; *Engine Mfrs. Ass’n v. United States EPA*, 88 F.3d 1075 (D.C. Cir. 1996). Thus, the statute requires that EPA not grant any California waiver application unless California makes a showing that it has “compelling and extraordinary conditions” necessitating the particular standards for which the waiver is sought.

In connection with the waiver application for California’s Nonroad Engine Rules, the record does not show that California needs those particular emissions standards to meet “compelling and extraordinary conditions” in the state. Accordingly, EPA must deny the waiver application under the plain language of Section 209(e)(2)(A)(ii) of the Clean Air Act.

EPA takes the position that California’s “need” for any particular emissions standard refers not to the need for the standard itself, but to the need for California to have its own motor vehicle air emissions program “as a whole.” *See* 74 Fed. Reg. at 32,761. But the actual language of the statute, as well as its legislative history, requires a different conclusion.

Congress provided in the Clean Air Act that California be given the opportunity to promulgate specific regulatory emissions standards that differed from federal ones, subject to EPA approval. Section 209(e)(2)(A)(ii) mandates that the EPA withhold its approval if California does not need a particular air emission standard to meet “compelling and extraordinary conditions” in the state. “Congress intended the word ‘standards’ in section 209 to mean quantitative levels of emissions.” *MEMA I*, 627 F.2d at 1112-13 (citing Senate Report on Air Quality of 1967, S. Rep. No. 403, 90th Cong., 1st Sess. 32 (1967)). There is no indication in the legislative history that by using the term “standard” Congress really meant “program.” As stated by the Supreme Court with specific reference to Section 209 of the Clean Air Act, “a standard is a standard” and not something else.¹⁰ *Engine Mfrs. Ass’n v. S. Coast Air Quality Mgmt. Dist.*, 541 U.S. at 254. The following discussion of the origin, evolution, and current status of Section 209(e)(2)(A)(ii) is instructive.

A. History of Section 209(e)(2)(A)(ii)

The original Clean Air Act did not contain a preemption provision for motor vehicles. Accordingly, there was no reason to include a waiver provision. *See* Pub. L. No. 89-272, 79 Stat. 992 (Oct. 20, 1965).

¹⁰ The Supreme Court construed the term “standards” as used in Section 209 to “denote . . . numerical emissions levels with which vehicles or engines must comply.” *Engine Mfrs.*, 541 U.S. at 254. *See Adamo Wrecking Co. v. United States*, 434 U.S. at 286 (“standard” means a quantifiable level of emissions to be attained by the use of techniques, controls, and technology).

On November 21, 1967, Congress enacted the “Air Quality Act of 1967,” which amended the Clean Air Act so as to include the following: (1) a provision explicitly preempting state emission standards for new motor vehicles,¹¹ (2) a recognition that California had certain “compelling and extraordinary” conditions that could require the state to promulgate new motor vehicle emissions standards that differed from the federal ones, and (3) a provision authorizing California to request waivers from federal preemption on a case-by-case basis when California could make a showing that it needed a particular emission standard to meet its “compelling and extraordinary conditions.” Congress added these provisions, which applied only to new motor vehicles, in what was then Section 208 of the Clean Air Act. Pub. L. No. 90-148, 81 Stat. 485 (Nov. 21, 1967). JA—. In relevant part, the text of then-Section 208 read:

(a) No State or any political subdivision thereof shall adopt or attempt to enforce any *standard* related to the control of emissions from new motor vehicles or new motor vehicle engines subject to this title. No State shall require certification, inspection, or any other approval relating to the control of emissions from any new motor vehicle or new motor vehicle engine as condition precedent to the initial retail sale, titling (if any), or registration of such motor vehicle, motor engine, or equipment.

¹¹ The 1967 amendments provided for federal preemption of state emissions standards for motor vehicles because motor vehicles “readily move across state boundaries,” and subjecting them to potentially 50 different sets of state emissions requirements raised the spectre of “an anarchic patchwork” of regulation that could threaten both interstate commerce and the automobile manufacturing industry. *Engine Mfrs. Ass’n*, 88 F.3d at 1079. Federal preemption of state motor vehicle emissions standards is the “corner stone” of Title II of the Clean Air Act, which generally governs emissions from motor vehicles. *Motor Vehicles Mfrs. Ass’n of the United States, Inc. v. New York State Dep’t of Env’tl. Conservation*, 17 F.3d 521, 526 (2d Cir. 1994).

(b) The Secretary shall, after notice and opportunity for public hearing, waive application of this section to any State which has adopted standards (other than crankcase emission standards), for the control of emissions from new motor vehicles or new motor vehicle engines *prior to March 30, 1966*,¹² unless he finds that such State does not require *standards more stringent than applicable Federal standards* to meet compelling and extraordinary conditions, or that such State standards and accompanying enforcement procedures are not consistent with section 202(a) of this title.

Id. (Emphasis added). The only state that had new motor vehicle standards in place prior to March 30, 1966, was California.

Thus, from the beginning, the waiver provision applied by its own terms to specific “standards” that California may require based on compelling and extraordinary conditions in the state. Congress authorized EPA’s predecessor to grant waivers from federal preemption but only when EPA found that California required “standards more stringent than applicable Federal standards.” Had Congress wanted to apply the waiver provision to California’s need for a separate motor vehicles emissions program as a whole, it easily could have used the term “program” rather than the term “standards” in the statute. But it did not do that. But Congress made the policy determination that, because of California’s “extraordinary and compelling conditions,” California could have the option of promulgating its own motor vehicle emissions standards on a case-by-case basis. Having made that overarching policy

¹² California is the only state meeting this statutory requirement. *Ford Motor Co. v. EPA*, 606 F.2d 1293, 1296 (D.C. Cir 1979).

decision, in 1967 Congress delegated to EPA's predecessor the authority to determine whether California requires or, more precisely, "does not require" the particular emissions standard for which waiver from federal preemption is sought.

Under the formulation of the 1967 amendments, if EPA makes the "does not require" finding, it may not grant the waiver. In short, Congress recognized that California's "compelling and extraordinary circumstances" are "sufficiently different from the Nation as a whole to justify standards . . . [that] may, *from time to time*, need to be more stringent than national standards." S. Rep. No. 90-403 at 33 (1967) (emphasis added). JA—. The highlighted language shows that Congress intended California to "justify" specific standards "from time to time" in waiver applications submitted to EPA, and that EPA would deny such periodic waiver applications if it found that California "does not require" particular standards that are "more stringent than applicable Federal standards to meet compelling and extraordinary conditions."

In 1970, Section 208 was relocated to Section 209. Clean Air Amendments of 1970, § 8(a), Pub. L. No. 91-604, 84 Stat. 1676 (Dec. 31, 1970). JA—. No substantive changes were made to that section until 1977.

In 1977, Congress amended Section 209(b), the waiver provision, to read:

(b)(1) The Administrator shall, after notice and opportunity for public hearing, waive application of this section to any State which has adopted *standards* (other than crankcase emission standards) for the control of emissions from new motor vehicles or new motor vehicle engines prior to March 30, 1966, if the State determines that the State *standards* will

be, in the aggregate, at least as protective of public health and welfare as applicable Federal standards. No such waiver shall be granted if the Administrator finds that:

(A) the determination of the State is arbitrary and capricious,

(B) such State does not need *such State standards* to meet compelling and extraordinary conditions, or

(C) such State standards and accompanying enforcement procedures are not consistent with section 202(a) of this part.

(2) If *each State standard* is at least as stringent as the comparable applicable Federal standard, *such State standard* shall be deemed to be at least as protective of health and welfare as such Federal standards for purpose of paragraph (1).

(3) In the case of any new motor vehicle or new motor vehicle engine to which State *standards* apply pursuant to a waiver granted under paragraph (1), compliance with *such State standards* shall be treated as compliance with applicable Federal standards for purposes of this title.

Clean Air Act Amendments of 1977, § 207, Pub. L. No. 95-95, 91 Stat. 685 (Aug. 7, 1977) (emphasis added). JA—.

The 1977 Amendments continued to focus on “standards,” but two important additions to the language were made. First, under the old 1967 waiver program, each California standard had to be “more stringent” than the corresponding federal standard. The amendment authorized EPA to approve a particular standard even though that standard may be less stringent than a corresponding federal standard, as long as California made a determination that its standards “in the aggregate” were at

least as protective of public health and welfare as are the federal standards. *MEMA I*, 627 F.2d at 1110. The amending language adding the term “in the aggregate” applied only to the protectiveness determination of Section 209(b)(1).

Second, the 1977 Amendments tighten the provision prohibiting waivers by making clear that “[n]o *such waiver* shall be granted if [EPA] finds that [California] . . . *does not need such standards* to meet compelling and extraordinary conditions.” (Emphasis added.) The old 1967 language provided that EPA “shall” grant waivers unless it found that California did “not require” the standard to meet compelling and extraordinary conditions. The 1977 Amendment expressly prohibited EPA from granting waivers where California did not “need” a particular emissions standard. Significantly, in describing the change made in the waiver provision in 1977, the House Report observes that California may need to have specific quantitative standards that differ from the federal ones. H.R. Rep. No. 294, 95th Cong. 1st Sess. 302 (1977). JA—

Thus, the 1977 Amendments create two specific tests for waiver applications: the “protectiveness test” and the “needs test.” The protectiveness test applies to the issue of whether the California standards “in the aggregate” are at least as protective of human health and the environment as the federal standards are in the aggregate.

The wholly separate needs test focuses on whether California needs the particular standards for which waiver is sought, based upon “compelling and extraordinary conditions” in the state.

By its own terms, Section 209(b) is limited to new motor vehicles and engines used on roads. It was only in 1990 that the Clean Air Act was amended to cover nonroad vehicles and engines, both new and existing. The 1990 Amendments added Subsection 209(e), the relevant portions of which were almost identical to the provisions of Section 209(b) discussed above.¹³

¹³ e) NONROAD ENGINES OR VEHICLES.

(1) PROHIBITION ON CERTAIN STATE STANDARDS. No State or any political subdivision thereof shall adopt or attempt to enforce any standard or other requirement relating to the control of emissions from either of the following new nonroad engines or nonroad vehicles subject to regulation under this Act.

(A) New engines which are used in construction equipment or vehicles or used in farm equipment or vehicles and which are smaller than 175 horsepower.

(B) New locomotives or new engines used in locomotives.

Subsection (b) shall not apply for purposes of this paragraph.

(2) OTHER NONROAD ENGINES OR VEHICLES. (A) In the case of any nonroad vehicles or engines other than those referred to in subparagraph (A) or (B) of paragraph (1), the Administrator shall, after notice and opportunity for public hearing, authorize California to adopt and enforce standards and other requirements relating to the control of emissions from such vehicles or engines if California determines that California standards will be, in the aggregate, at least as protective of public health and welfare as applicable Federal standards. No such authorization shall be granted if the Administrator finds that:

(continued...)

Significantly, the following statement was made on the floor by a sponsor of the 1990 Amendments:

Under the new act, as under current law, States with nonattainment areas may adopt California vehicle emissions performance standards if a waiver has been granted under section 209 *for those standards*.

Extended Remarks of Mr. Symms on Passage of S. 1630, Nov. 2, 1990, 6 Environment and Natural Resources Policy Division, Library of Congress, A Legislative History of the Clean Air Act Amendments of 1990, 10726 (1998) JA—. (Emphasis added).

Thus, the history of the Clean Air Act's California waiver provisions shows that Congress intended the needs test set forth in Sections 209(b)(1)(B) and 209(e)(2)(A)(ii) to apply to whether there was a need for each particular quantitative emissions standard for which a waiver application is made. While the protectiveness test focuses on whether California's standards are as stringent as EPA's standards "in the aggregate," the needs test focuses on whether California's "compelling and

¹³ (...continued)

(I) the determination of California is arbitrary and capricious,

(ii) California does not need such California standards to meet compelling and extraordinary conditions, or

(iii) California standards and accompanying enforcement procedures are not consistent with this section.

Clean Air Act Amendments of 1990, § 222(b), 1990 S. 1630 (Nov. 9, 1990). JA—.

extraordinary conditions” are such that California needs the particular standard for which the waiver application is made.

**B. EPA’s Interpretation of the Term “Standards”
As Used in Section 209(e)(2)(A)(ii) Is Contrary
to the Plain Meaning of the Statutory Text**

The legislative history outlined in Section II. A., *supra*, puts in context the plain meaning of the statutory text.¹⁴ No waiver shall be granted if the Administrator determines that California does not need “such California standards.” Section 209(e)(2)(A)(ii). The term “such California standards” does not refer to the entire California mobile source emissions program, as the term “program” is not used even once in Section 209. Nor has it ever been used in Section 209 or its legislative predecessors.

Even the term “in the aggregate” appears only once in Section 209 and, when it does, it refers only to the protectiveness test added to the Clean Air Act as part of the 1977 Amendments.¹⁵ Additionally, the term “in the aggregate” is itself set off by

¹⁴ “In statutory interpretation, . . . the plain language of a statute [must be given effect] unless ‘literal application of a statute will produce a result demonstrably at odds with the intentions of its drafters.’” *Cent. Valley Chrysler-Jeep, Inc. v. Goldstene*, 563 F. Supp. 2d 1158, 1163 (E.D. Cal. 2008) (quoting *Resolution Trust Corp. v. Bayside Developers*, 43 F.3d 1230, 1236 (9th Cir. 1995)).

¹⁵ Just as Congress inserted the phrase “accompanying enforcement procedures” in some sections and not others, Congress inserted the phrase “in the aggregate” in some places and not others. It is improper to assume that Congress intended the phrase “in the aggregate” to apply whenever the statute speaks of “standards.” *See Motor &* (continued...)

commas, providing further evidence that the term refers solely to the protectiveness test established in that sentence:

[T]he Administrator shall . . . authorize California to adopt and enforce standards and other requirements . . . if California determines that California standards will be, in the aggregate, at least as protective of public health and welfare as applicable Federal standards.

On the other hand, the needs test appears in a subsequent sentence, embedded in a clause that is prefaced by proscriptive language:

No such authorization shall be granted if the Administrator finds that:

(i) . . .

(ii) California does not need such California standards to meet compelling and extraordinary condition.

The “in the aggregate” language appearing in the sentence establishing the protectiveness test is independent of and does not modify the language in the separate sentence establishing the needs test. The outcome of the protectiveness test depends on whether *California* makes a protectiveness finding, while the outcome of the needs test depends on whether *EPA* makes a needs finding. Not only are the findings separate but they must be made by separate entities.

Further, the language in the sentence establishing the protectiveness test *affirmatively mandates* that EPA approve the waiver application if California makes

¹⁵ (...continued)

Equipment Mfrs., 627 F.2d at 1113 (“Congress was certainly capable of adding the phrase ‘accompanying enforcement procedures’ wherever the word ‘standards’ appeared if it desired the statutory findings to apply to both. We see no reason to assume that its failure to do so is attributable to sloppy draftmanship.”)

the requisite protectiveness finding, while the language in the sentence establishing the needs test *expressly prohibits* EPA from granting a waiver application unless EPA makes the requisite needs finding. Thus, the protectiveness test is drafted to broaden the likelihood of granting a waiver, while the needs test is drafted to narrow the likelihood of granting a waiver. This makes perfect sense in the context of the 1977 Amendments, where Congress engaged in a legislative trade-off. Any California standard that was less stringent than its corresponding federal standard could be approved if all the California standards, “in the aggregate,” were at least as stringent as all the federal standards in the aggregate. On the other hand, Congress prohibited EPA from approving any specific standard if California did not have a need for that standard based upon “extraordinary and compelling conditions” in the state. The two different tests were intended to address entirely different issues, and Congress gave greater authority to EPA to approve waivers under the protectiveness test, but lesser authority to approve waivers under the separate and grammatically independent needs test.

Moreover, the sentence establishing the protectiveness test applies to both “standards and other requirements” (emphasis added), while the sentence establishing the needs test refers only to “standards.” The difference makes perfect sense because the sentence establishing the protectiveness test was drafted to address California’s regulatory efforts holistically, and if California’s overall regulatory approach provided

at least the same level of overall protection to human health and welfare as did the federal approach, it mattered not that an individual California standard did not provide exactly the same level of protection as its corresponding federal standard. On the other hand, to ensure that California did not abuse the privilege of veering from a uniform national system governing emissions from motor vehicles, Congress insisted that EPA deny a waiver application if it found under the needs test that California did not need a particular emissions standard to meet “compelling and extraordinary conditions” in the state.

The line drawn by Congress is eminently sensible. Section 209 gives California discretion to propose a portfolio of standards that collectively maximizes overall “protectiveness,” an aim that is entirely compatible with requiring EPA to confirm that each component of that portfolio is actually “needed.” This gives California leeway to enact a “mix” of emission standards that furthers its interests, yet ensures that EPA protects the national interest in the mobility of motor vehicles against California imposing regulations that do not address California’s particular local conditions.

Thus, there is no reasonable basis to assert that the term “in the aggregate” used in the sentence establishing the protectiveness test modifies the plain language of Section 209(e)(2)(A)(ii), which provides under the separate needs test that EPA must deny any waiver application if it finds that California does not need the specific standard for which a waiver is sought to meet “extraordinary and compelling

conditions” in the state. Accordingly, the “in the aggregate” language of Section 209, applies only to the protectiveness test and not to the needs test.

C. EPA’s Interpretation Leads to Absurd Results

EPA’s interpretation that the needs test applies to the entire California motor vehicles emissions program and not to individual emissions standards leads to absurd results. EPA acknowledges that the conditions in California may improve, thereby eliminating the need for the California waiver program. 74 Fed. Reg. at 32,762. JA—. If a time comes when California no longer needs its own program “as a whole,” EPA will be forced to make a finding to that effect and deny waiver applications. But such a finding would put in jeopardy EPA’s past grants of California waiver applications, since those applications would have been granted at a time when EPA had determined that California needed its own program as a whole. Accordingly, by making a “no need” finding in connection with one particular waiver application, all previous waivers would no longer be “needed” under EPA’s “programmatic” interpretation of Section 209(2)(A)(ii).

But in the CAA Congress made the policy judgment that California should be permitted to have its own motor vehicle regulatory program composed of state-specific emissions standards that meet both the needs and the protectiveness tests. By insisting that the needs test applies to the broad issue of whether California requires its own motor vehicle program “as a whole,” EPA is substituting its own judgment for

the one Congress made in the CAA. Thus, if EPA can decide that California needs a separate motor vehicle regulatory program “as a whole,” it can also decide that California does not need such a program, and that therefore, the program is impermissible. This would efface Congress’ policy judgment permitting such a program. EPA cannot veto a Congressional policy decision in that way, regardless of its administrative predilections. *Food and Drug Administration v. Brown & Williamson*, 529 U.S. 120, 125 (2000) (EPA may not substitute its judgment for that of Congress.).

On the other hand, applying the needs test on a standard-by-standard basis focuses EPA’s attention on whether or not California’s “compelling and extraordinary circumstances” lead to a conclusion that there is a need for the particular standard for which California is applying for a waiver. If there is no need for a particular California standard and the waiver application is denied, all previously granted waivers would remain unaffected.

Where one interpretation of a statute leads to absurd results while another interpretation does not, the interpretation leading to absurd results must be abandoned. *Env’tl. Def. Fund, Inc. v. EPA*, 82 F.3d 451, 468-69 (D.C. Cir. 1996); *Resolution Trust Corp.*, 43 F.3d at 1236. Accordingly, because EPA’s interpretation of the needs test leads to absurd results, while the Petitioners’ interpretation does not, EPA’s interpretation must be abandoned.

III

THE EPA WAIVER DECISION SHOULD BE VACATED AND REMANDED

Invalid agency actions are ordinarily vacated and remanded. *Fed. Power Comm'n v. Transcon. Gas Pipe Line Corp.*, 423 U.S. 326, 331 (1976). An agency's failure to comply with statutory requirements usually results in vacating the rule. *Sugar Cane Growers Co-op of Florida v. Veneman*, 289 F.3d 89, 97 (D.C. Cir. 2002) ("Normally, when an agency so clearly violates the APA we would vacate its action."). Here, EPA failed to apply the statutorily mandated standard to make the waiver decision. Accordingly, the Petitioners and the public were not provided with an opportunity to make meaningful comments on whether a waiver should be granted. *See Sprint Corp. v. Fed. Commc'n Comm'n*, 315 F.3d 369 (D.C. Cir. 2003) (noting that the D.C. Circuit has opted for vacatur as a complement to remand with some regularity when notice-and-comment is absent). Had the correct statutory standard been used by EPA to make the waiver decision, meaningful comments on *that* decision could have been made.

This Court has stated that vacatur is not necessarily required for deficiencies but that "the decision whether to vacate depends on [(1)] the 'seriousness of the order's deficiencies'" as well as (2) "the disruptive consequences of an interim change that may itself be changed." *Sugar Cane Growers*, 289 F.3d at 98. Moreover, when

petitioners would be harmed if an EPA rule were remanded but not vacated, this Court has chosen to vacate the rule. *Cement Kiln Recycling Coalition v. EPA*, 255 F.3d 855, 872 (D.C. Cir. 2001).

Here, Petitioners have shown that they will be harmed if the waiver grant is not vacated. *See*, Norman Brown Decl. ¶¶ 5-12, (JA—); Lee Brown Decl. ¶¶ 5-12, (JA—); Klenske Decl. ¶¶ 5-9, (JA—).

In addition, EPA's utter failure to apply the correct decisionmaking standard evidences the seriousness of the deficiency in this case, while potential disruptive consequences of vacatur here are minimal, because EPA would simply be required to revisit the issue of whether to grant the waiver, using the correct standard.

Accordingly, the EPA's California Nonroad Engine Waiver Decision should not only be remanded to EPA, but it should also be vacated.

CONCLUSION

For the foregoing reasons, this Court should send this case to the Ninth Circuit for resolution or, in the alternative, vacate and remand EPA's California Nonroad Engine Waiver Decision, with instructions to EPA to apply the correct standard in making its decision.

DATED: February 13, 2015

Respectfully submitted,

PACIFIC LEGAL FOUNDATION
M. REED HOPPER
THEODORE HADZI-ANTICH

By s/THEODORE HADZI-ANTICH
THEODORE HADZI-ANTICH

Counsel for Petitioners
Dalton Trucking, Inc., et al.

LAW OFFICE OF LAWRENCE J. JOSEPH

s/LAWRENCE J. JOSEPH
LAWRENCE J. JOSEPH

Counsel for Petitioner
American Road & Transportation
Builders Association

CERTIFICATE OF COMPLIANCE WITH RULE 32(a)
CERTIFICATE OF COMPLIANCE WITH
TYPE-VOLUME LIMITATION, TYPEFACE
REQUIREMENTS, AND TYPE STYLE REQUIREMENTS.

1. This JOINT OPENING BRIEF OF PETITIONERS DALTON TRUCKING, INC., ET AL., AND AMERICAN ROAD & TRANSPORTATION BUILDERS ASSOCIATION complies with the type-volume limitation of Fed. R. App. P. 32(a)(7)(B) because:

 I It contains 14,464 words excluding the parts of the brief exempted by Fed. R. App. P. 32(a)(7)(b)(iii), or

 It uses a monospaced typeface and contains _____ lines of text, excluding the parts of the brief exempted by Fed. R. App. P. 32(a)(7)(B)(iii).

2. This JOINT OPENING BRIEF OF PETITIONERS DALTON TRUCKING, INC., ET AL., AND AMERICAN ROAD & TRANSPORTATION BUILDERS ASSOCIATION complies with the typeface requirements of Fed. R. App. P. 32(a)(5) and the type style requirements of Fed. R. App. P. 32(a)(6) because:

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DATED: February 13, 2015.

s/THEODORE HADZI-ANTICH

*Attorney for Petitioners
Dalton Trucking, Inc., et al.*

CERTIFICATE OF SERVICE

I hereby certify that on February 13, 2015, I electronically filed the foregoing with the Clerk of the Court for the United States Court of Appeals for the District of Columbia Circuit by using the appellate CM/ECF system.

I certify that all participants in the case are registered CM/ECF users and that service will be accomplished by the appellate CM/ECF system.

s/THEODORE HADZI-ANTICH
THEODORE HADZI-ANTICH

ORAL ARGUMENT NOT YET SCHEDULED

No. 13-1283
(Consolidated with 13-1287)

IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

DALTON TRUCKING, INC., et al.,

Petitioners,

v.

ENVIRONMENTAL PROTECTION AGENCY, et al.

Respondents.

On Petition for Review from the Environmental Protection Agency
EPA-78 Fed. Reg. 58,090

**DECLARATION OF LEE BROWN IN SUPPORT OF
JOINT OPENING BRIEF OF PETITIONERS**

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Counsel for Petitioners
Dalton Trucking, Inc., et al.

I, Lee Brown, do hereby declare as follows:

1. The facts set forth in this declaration are based on my personal knowledge and, if called as a witness, I could and would competently testify thereto under oath. As to those matters which reflect a matter of opinion, they reflect my personal opinion and judgment upon the matter.

2. I am the Executive Director of the California Construction Trucking Association.

3. CCTA is a California trade association of small and large companies comprised of over 1,000 members involved in a variety of businesses. Many CCTA members own and operate off-road vehicles powered by diesel engines, also known as compression ignition engines, and CCTA Members rely on those vehicles to conduct their business activities.

4. I am familiar with rules of the California Air Resources Board ("CARB") governing emissions of particulate matter and oxides of nitrogen from in-use off-road (nonroad) diesel fueled equipment with engines greater than 25 horsepower (the "CARB Off-Road Diesel Rules").

5. CARB's Off-Road Diesel Rules require many CCTA members to purchase expensive retrofit equipment in order to comply with the emissions standards.

6. I understand that CARB could not enforce its Off-Road Diesel Rules unless and until they were granted a waiver by the United States Environmental Protection Agency (“EPA”) from federal preemption under the Clean Air Act. EPA granted the waiver on September 20, 2013, and the waiver grant was published at 78 Fed. Reg. 58,090, *et seq.* (Sept. 20, 2013) (the “EPA Waiver Grant”). Accordingly, CCTA members are subject to the CARB Off-Road Diesel Rules now and are now required to purchase the expensive new retrofit equipment mandated by the rules.

7. CCTA members are injured by the CARB Off-Road Diesel Rules because they either incur additional costs to purchase the retrofit equipment for their existing vehicles or are required to take them out of service. For CCTA members that have the cash or credit to purchase the expensive new retrofits, they are injured because they lose operating funds and borrowing ability, resulting in reduction of profitability, severe cash flow problems affecting business operations, and layoffs of employees.

8. Other CCTA members cannot afford to install the expensive retrofits mandated by the rules and have been forced to take out of service a number of nonroad vehicles, in order to get below the current applicability threshold of 5,000 horsepower, resulting in the instant destruction of the value of the equipment, a decrease in their ability to maintain their former workload, and a consequent loss of

profit reflected on their balance sheets. As a result, their ability to borrow money to support even their reduced current operations has been severely damaged. Because of the reduction in horsepower capacity, they have also been forced to refrain from bidding on new jobs that require the additional capacity. This has resulted in layoffs of experienced and valuable employees. Even with the decrease in total horsepower capacity and consequent loss of profits, employees, and business opportunities stemming from the rules, these CCTA members will be subject to the full retrofit requirements in 2019, when the phase-in period terminates and all of their remaining nonroad equipment will be covered by the rules. Because their business prospects have already been severely damaged by rules, they will be even less able to afford the retrofits required in 2019. As a result, they will either go out of business or find ways of cutting costs in other areas by further changing or reducing their business activities. In either event, this will mean further layoffs of employees, a negation or further reduction of profitability, and, in some cases, business shutdowns.

9. These adverse impacts have injured and will continue to injure the members of CCTA, as long as EPA's Waiver Grant remains effective and in place.

10. If EPA's Waiver Grant were to be vacated, the members of CCTA would no longer be injured by the cost increases attributable to the CARB Off-Road Diesel Rules because CARB would no longer be authorized to enforce them. Accordingly,

CCTA members would no longer suffer the economic losses caused by EPA's Waiver Grant.

11. One of the missions of CCTA is to preserve and foster regulatory programs that encourage the use of business equipment for the duration of its useful life without the need for stringent retrofits or replacements.

12. For the reasons stated in Paragraphs 5 - 11, CCTA has been forced to expend its resources on challenging EPA'S Waiver Grant. These are resources that CCTA could have devoted to accomplish its other missions, such as representing the interests of its members in a variety of other contexts, including legislative and regulatory reforms to benefit its members in a variety of ways, such as encouraging, among other things, highway and infrastructure repair for the safety of CCTA members. The channeling of resources away from accomplishing those important goals of CCTA has directly injured CCTA as an organization. That injury will be redressed if EPA's waiver grant is vacated because CCTA will no longer be required to devote any resources to challenging or encouraging amendment or repeal of the rules.

I declare under penalty of perjury that the foregoing is true and correct and that this declaration was executed this 2 day of February, 2015, at Upland, California.



LEE BROWN

ORAL ARGUMENT NOT YET SCHEDULED

No. 13-1283
(Consolidated with 13-1287)

IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

DALTON TRUCKING, INC., et al.,

Petitioners,

v.

ENVIRONMENTAL PROTECTION AGENCY, et al.

Respondents.

On Petition for Review from the Environmental Protection Agency
EPA-78 Fed. Reg. 58,090

**DECLARATION OF NORMAN R. "SKIP" BROWN
IN SUPPORT OF JOINT OPENING BRIEF OF PETITIONERS**

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*Counsel for Petitioners,
Dalton Trucking, Inc., et al.*

I, Norman R. ("Skip") Brown, do hereby declare as follows:

1. The facts set forth in this declaration are based on my personal knowledge and, if called as a witness, I could and would competently testify thereto under oath. As to those matters which reflect a matter of opinion, they reflect my personal opinion and judgment upon the matter.

2. I am the Owner of Delta Construction Company ("Delta") and Delta is a member of the California Construction Trucking Association, Inc.

3. Delta owns and operates off-road vehicles powered by diesel engines, also known as compression ignition engines, and Delta relies on those vehicles to conduct its business activities.

4. I am familiar with rules of the California Air Resources Board ("CARB") governing emissions of particulate matter and oxides of nitrogen from in-use off-road (nonroad) diesel fueled equipment with engines greater than 25 horsepower (the "CARB Off-Road Diesel Rules").

5. CARB's Off-Road Diesel Rules require Delta to purchase expensive retrofit equipment in order to comply with the emissions standards. In some cases, retrofit equipment will not work on existing engines, thereby requiring complete replacement of that equipment.

6. I understand that CARB could not enforce its Off-Road Diesel Rules unless and until they were granted a waiver by the United States Environmental

Protection Agency (“EPA”) from federal preemption under the Clean Air Act. EPA granted the waiver on September 20, 2013, and the waiver grant was published at 78 Fed Reg. 58090, et seq. (the “EPA Waiver Grant”). Accordingly, Delta is subject to the CARB Off-Road Diesel Rules now and is now required either to purchase the expensive new retrofit equipment mandated by the rules or to take the equipment out of service.

7. The rules apply now to any company operating a total nonroad vehicle engine horsepower capacity of 5,000 or greater. For companies with less horsepower capacity in their fleets, the rules are being phased-in between now and 2019.

8. If Delta had the capital or credit necessary to purchase the new retrofit equipment for all of its vehicles subject to the rules, it would do so. But Delta does not have the capital or the credit to purchase for all of its vehicles the expensive new equipment mandated by the CARB Off-Road Diesel Rules. At the same time, Delta is prohibited from operating its off-road diesel vehicles without retrofitting them in compliance with the rules.

9. Because the cost of retrofitting is prohibitive, Delta was forced to take out of service a number of nonroad vehicles, in order to get below the current applicability threshold of 5,000 horsepower, resulting in the instant destruction of the value of the equipment, a decrease in Delta’s ability to maintain its former workload, and a consequent loss of profit reflected on its balance sheet. As a result, Delta’s


ability to borrow money to support even the reduced current operations has been severely damaged. Because of the reduction in horsepower capacity, Delta has also been forced to refrain from bidding on new jobs that require the additional capacity. This has resulted in layoffs of experienced and valuable employees.

10. Even with the decrease in total horsepower capacity and consequent loss of profits, employees, and business opportunities stemming from the rules, Delta will be subject to the full retrofit requirements in 2019, when the phase-in period terminates and all of Delta's remaining nonroad equipment will be covered by the rules. Because its business prospects have been severely damaged by rules, it will not be able to afford the retrofits required in 2019. As a result, Delta will either to go out of business or find ways of cutting costs in other areas by further changing or reducing its business activities. In either event, this will likely mean further layoffs of employees, and a negation or further reduction of profitability.

11. These adverse impacts have injured and will continue to injure Delta, as long as EPA's Waiver Grant remains effective and in place.

12. If EPA's Waiver Grant were to be vacated, Delta would no longer be injured by the cost increases attributable to the CARB Off-Road Diesel Rules because CARB would no longer be authorized to enforce them. Accordingly, Delta would no longer suffer the economic losses caused by EPA's Waiver Grant.

I declare under penalty of perjury that the foregoing is true and correct and that this declaration was executed this 2ND day of February, 2015, at SACRAMENTO, California.


NORMAN R. ("SKIP") BROWN

ORAL ARGUMENT NOT YET SCHEDULED

No. 13-1283
(Consolidated with 13-1287)

IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

DALTON TRUCKING, INC., et al.,

Petitioners,

v.

ENVIRONMENTAL PROTECTION AGENCY, et al.

Respondents.

On Petition for Review from the Environmental Protection Agency
EPA-78 Fed. Reg. 58,090

**DECLARATION OF TERRY KLENSKE IN SUPPORT OF
JOINT OPENING BRIEF OF PETITIONERS**

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*Counsel for Petitioners
Dalton Trucking, Inc., et al.*

I, Terry Klenske, do hereby declare as follows:

1. The facts set forth in this declaration are based on my personal knowledge and, if called as a witness, I could and would competently testify thereto under oath. As to those matters which reflect a matter of opinion, they reflect my personal opinion and judgment upon the matter.

2. I am President of Dalton Trucking, Inc. ("Dalton"). Dalton is a member of the California Construction Trucking Association, Inc.

3. Dalton owns and operates off-road vehicles powered by diesel engines, also known as compression ignition engines, and Dalton relies on those vehicles to conduct its business activities.

4. I am familiar with rules of the California Air Resources Board ("CARB") governing emissions of particulate matter and oxides of nitrogen from in-use off-road (nonroad) diesel fueled equipment with engines greater than 25 horsepower (the "CARB Off-Road Diesel Rules").

5. CARB's Off-Road Diesel Rules require Dalton to purchase expensive retrofit equipment in order to comply with the emissions standards.

6. I understand that CARB could not enforce its Off-Road Diesel Rules unless and until they were granted a waiver by the United States Environmental Protection Agency ("EPA") from federal preemption under the Clean Air Act. EPA granted the waiver on September 20, 2013, and the waiver grant was published at

78 Fed. Reg. 58,090, *et seq.* (Sept. 20, 2013) (the "EPA Waiver Grant"). Accordingly, Dalton is subject to the CARB Off-Road Diesel Rules now and is now required to purchase the expensive new retrofit equipment mandated by the rules.

7. Dalton is injured by the CARB Off-Road Diesel Rules because Dalton will incur additional costs to purchase the retrofit equipment for its existing vehicles or will be required to take them out of service. As a result, Dalton will lose operating funds and borrowing ability, resulting in reduction of profitability, cash flow problems affecting business operations, and possible layoffs of employees, all of which will adversely affect Dalton's business.

8. These adverse impacts have injured and will continue to injure Dalton, as long as EPA's Waiver Grant remains effective and in place.

9. If EPA's Waiver Grant were to be vacated, Dalton would no longer be injured by the cost increases attributable to the CARB Off-Road Diesel Rules because CARB would no longer be authorized to enforce them. Accordingly, Dalton would no longer suffer the economic losses caused by EPA's Waiver Grant.

I declare under penalty of perjury that the foregoing is true and correct and that this declaration was executed this 2 day of February, 2015, at Fontana, California.


TERRY KLENKE

**IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT**

DALTON TRUCKING, INC., *et. al.*,
Petitioners,

v.

U.S. ENVIRONMENTAL
PROTECTION AGENCY, *et. al.*,
Respondents,

Nos. 13-1283, 13-1287

and

CALIFORNIA AIR RESOURCES
BOARD,
Intervenor-Respondent.

DECLARATION OF LAWRENCE J. JOSEPH

I, Lawrence J. Joseph, hereby declare and state as follows:

1. I am over 18 years of age, and I reside in McLean, Virginia.
2. I am the counsel for petitioner American Road & Transportation Builders Association ("ARTBA") in the above-captioned action.
3. I represented ARTBA in *Engine Mfrs. Ass'n v. Huston*, Civ. No. A-00-CA-316-SS (W.D. Tex.), reported at 190 F.Supp.2d 922 (W.D. Tex. 2001). Concurrent with that litigation and since then, I have represented and worked with ARTBA, as well as its state chapters, in various matters related to: (a) the regulation and proposed regulation of construction-equipment emissions by federal, state, and local government, (b) incentive-based alternatives to such

regulation, and (c) preparation of various attainment demonstrations and State Implementation Plan (“SIP”) revisions under the federal Clean Air Act. In the foregoing capacity, I have become familiar with facets of ARTBA’s membership.

4. ARTBA is a nonprofit trade federation representing the collective interests of the U.S. transportation construction industry in the Congress, the federal agencies, and the courts. Through ARTBA’s state chapters and divisions, ARTBA has more than 5,000 members from all sectors and modes of the transportation construction industry, including without limitation, roads, public transit, airports, ports, and waterways. ARTBA has members in every state, including without limitation transportation construction firms in California, Georgia, Florida, Texas, Wisconsin, Ohio, Illinois, each of the northeastern states, and each of the New England states.

5. Avoiding the application of California Air Resources Board’s In-Use Off-Road Diesel (“ORD”) rule, 13 Cal. Code Regs. §§2449-2449.3, would save many ARTBA members tens of thousands of dollars (or more) on their equipment costs, both in California itself and in any other states that would adopt the California standards. If any non-California states adopt the ORD rules’ controls on construction-equipment emissions, ARTBA’s members (which have engaged in transportation construction and will continue to do so) would be targeted by the new state-adopted ORD rule.

6. Some of the petitioners in No. 13-1283 are ARTBA members, but ARTBA's membership includes California-based construction firms that are regulated by the ORD rule in California and that are not petitioners in No. 13-1283.

7. Working through their state chapters, ARTBA's members advocate before state agencies and legislatures. As defined by its mission statement, ARTBA exists to advance the interest of the transportation construction industry, which includes protecting its members from unauthorized and dubious regulations. On the specific subject of emissions from construction equipment, ARTBA intervened in litigation in Texas, reported at *EMA v. Huston, supra*, to challenge state fleet and in-use controls on construction equipment.

8. ARTBA has active chapters all of the several various states that (a) include areas designated as "nonattainment areas" for ozone and particulate-matter under the federal Clean Air Act, and (b) have opted into prior California mobile-source standards. Although the membership of ARTBA and its state chapters includes entities that do not own or operate construction equipment (e.g., come engineering firms), the most common member types in not only ARTBA itself but also each of its state chapters are construction companies that own construction equipment that would be regulated by the ORD rule if that rule applied in the relevant state.

9. In its independent statement of reasons (*i.e.*, staff report) for its ORD rule (<http://www.arb.ca.gov/regact/2007/ordiesl07/isor.pdf>), CARB considered the rule's cost "significant" and estimated the total cumulative cost of the regulation between 2009 and 2030 at between \$3.0 and \$3.4 billion in 2006 dollars, with the majority of costs occurring between 2010 and 2021; CARB subsequently deferred some of the effective dates of the rule and modified the rule, which might shift or decrease those costs marginally (*i.e.*, not significantly vis-à-vis the total initial estimates). CARB further estimated annual costs between \$229 million and \$257 million per year, averaging \$243 million per year in 2006 dollars. The foregoing costs are costs within California, and comparable costs would be borne by the industry in states other than California, except that as later-adopting states opt in, there presumably would be less and less of a market for used equipment that is noncompliant with the ORD rule (*i.e.*, as more states prohibit or discourage use of Clean Air Act-compliant equipment via the ORD rule, the entities regulated later in time will have less of a national market into which to sell their existing, pre-ORD equipment).

10. States' command-and-control measures on ARTBA members' equipment and operations will have an adverse financial and operational impact on ARTBA's members. In particular, because equipment constitutes a significant portion of ARTBA members' assets, state and local efforts to restrict the use of

equipment through fleet turnover controls, retrofit requirements, in-use controls, and other requirements would severely injure most companies financially and could render many smaller companies unable to stay in business or to compete for projects covered by the state or local restrictions.

11. ARTBA and its members have engaged in negotiations with state and local regulators over construction-equipment controls in several states, including without limitation California and Texas. In addition, ARTBA anticipates that additional states or localities will consider such controls in the future under the federal Clean Air Act, for attainment demonstrations or maintenance plans for nonattainment areas with the federal ozone or particulate-matter standards. Even where states are not inclined to impose controls or to opt into the ORD rule, environmental groups likely would seek to impose such controls as “reasonable further progress” types of SIP revisions, when states fail to attain ambient air quality standards by the applicable deadlines and milestones.

12. In Texas, ARTBA’s district-court victory in *EMA v. Huston, supra*, against state fleet and use standards enabled ARTBA’s Texas chapter to negotiate a more-favorable, incentive-based regime for reducing construction-fleet emissions with Texas.

13. Taking the adoptability of the ORD rule out of consideration as a means of reducing construction-equipment emissions outside California would

enhance the bargaining and legal position of ARTBA's non-California state chapters. A legal ruling against the lawfulness (and thus the creditability) of such emission reductions would benefit ARTBA and its members vis-à-vis state and local regulators who wanted to obtain SIP-creditable emission reductions from the construction sector, thereby substantially increasing the probability of having voluntary, incentive-based controls that would gain sufficient industry participation to meet the state regulators' emission-reduction goals.

I declare under penalty of perjury that the foregoing is true and correct of my personal knowledge, which I believe to be true and if called as a witness I would be competent to testify thereto. Executed on this 13th day of February, 2015.

/s/ Lawrence J. Joseph

Lawrence J. Joseph

ORAL ARGUMENT NOT YET SCHEDULED

Docket Nos. 13-1283 & 13-1287

**UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT**

DALTON TRUCKING, INC.; et al.,

Petitioners,

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, et al.,

Respondents.

AMERICAN ROAD & TRANSPORTATION
BUILDERS ASSOCIATION

v.

UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY

On Petition for Review of Final Action of the United States Environmental
Protection Agency EPA-HQ-OAR-2008-0691

**BRIEF FOR INTERVENOR CALIFORNIA AIR RESOURCES BOARD IN
SUPPORT OF THE ENVIRONMENTAL PROTECTION AGENCY**

KAMALA D. HARRIS
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[continued on next page]

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Resources Board*

**CERTIFICATE AS TO PARTIES, RULINGS, AND RELATED CASES
(CIRCUIT RULE 28(a)(1))**

Pursuant to Circuit Rules 28(a)(1), Intervenor California Air Resources Board (“ARB”) submits this certificate of parties, rulings, and related cases.

(A) Parties and Amici.

i. Parties, Intervenor, and Amici Who Appeared in the District Court

This case is a petition for review of a final agency action, not an appeal from the ruling of a district court.

ii. Parties to This Petition for Review

Petitioners (No. 13-1283): Dalton Trucking, Inc.; Loggers Association Of Northern California, Inc.; Robinson Enterprises, Inc.; Nuckles Oil Co., Inc., dba Merit Oil Company; California Construction Trucking Association, Inc.; Construction Industry Air Quality Coalition; Delta Construction Company; Southern California Contractors Association, Inc.; Ron Cinquini Farming; and United Contractors (collectively, “California Petitioners”).

Petitioners (No. 13-1287): American Road & Transportation Builders Association (“ARTBA”).

Respondents (Nos. 13-1283 & 13-1287): United States Environmental Protection Agency (“EPA”), and Gina McCarthy in her official capacity as the Administrator of EPA.

Intervenor: ARB.

(B) Rulings Under Review. Petitioners seek review of EPA's grant of a waiver of federal preemption (78 Fed. Reg. 58,090, September 20, 2013, EPA Docket ID.: EPA-HQ-OAR-2008-0691) for ARB's regulations of in-use, off-road diesel equipment, pursuant to section 209(e) of the Clean Air Act, 42 U.S.C. § 7543(e).

(C) Related Cases. California Petitioners petitioned the U.S. Court of Appeals for the Ninth Circuit, challenging the same EPA action, in *Dalton Trucking, Inc. v. EPA*, No. 13-74019 (Nov. 18, 2013). ARB intervened in that case as well. On March 11, 2014, the Ninth Circuit issued an order, *sua sponte*, holding California Petitioners' petition in abeyance pending a determination by this Court regarding whether the instant petitions "were properly filed in [the D.C. Circuit] pursuant to 42 U.S.C. § 7607(b)(1)."

Respectfully submitted,

Dated: May 26, 2015

/s/ Ross H. Hirsch

ROSS H. HIRSCH

Deputy Attorney General

Attorney for Intervenor California

Air Resources Board

GLOSSARY

ARTBA	American Road and Transportation Builders Association
CAA	Clean Air Act, 42 U.S.C. §§ 7401-7671
ARB	California Air Resources Board
EPA	United States Environmental Protection Agency
LEV	Low Emission Vehicle
NAAQS	National Ambient Air Quality Standards
NO _x	Oxides of Nitrogen
PM	Particulate matter
PM _{2.5}	Fine Particulate Matter
SIP	State Implementation Plan

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STATEMENT OF JURISDICTION

Pursuant to D.C. Circuit Rule 28(d)(2), Intervenor California Air Resources Board (“ARB”) joins and incorporates without repeating the statement of jurisdiction and related arguments presented by Respondent U.S. Environmental Protection Agency (“EPA”). *See* Respondent’s Brief at p. 1.

STATUTES AND REGULATIONS

Except for the California statutes and regulations provided in a separately bound addendum to this brief, all applicable statutes and regulations are contained in the separate addendum to the Petitioners’ Joint Opening Brief and EPA’s Respondent’s Brief.

STATEMENT OF ISSUES

Pursuant to D.C. Circuit Rule 28(d)(2), ARB joins and incorporates without repeating Respondent EPA’s statement of the issues presented for review. *See* Respondent’s Brief at p. 1.

STATEMENT OF THE CASE

ARB files this brief in support of the Respondent’s Brief filed by EPA and joins and incorporates EPA in opposing the claims raised by the two petitioner groups: (1) Petitioners Dalton Trucking, Inc.; Loggers Association Of Northern California, Inc.; Robinson Enterprises, Inc.; Nuckles Oil Co., Inc., dba Merit Oil Company; California Construction Trucking Association, Inc.; Construction Industry Air Quality Coalition; Delta Construction Company; Southern California

Contractors Association, Inc.; Ron Cinquini Farming; and United Contractors (collectively, “California Petitioners”), and (2) American Road & Transportation Builders Association (“ARTBA”) (collectively, “Petitioners”).

Pursuant to D.C. Circuit Rule 28(d)(2), ARB hereby joins and incorporates EPA’s statement of the case. *See* Respondent’s Brief at pp. 3-18. ARB provides the following supplementary factual background information.

**FACTUAL BACKGROUND REGARDING EPA’S APPROVAL OF
CALIFORNIA’S IN-USE NONROAD DIESEL FUELED FLEETS
REQUIREMENTS**

ARB is California’s air pollution agency for all purposes set forth in federal law, including the responsibility for controlling motor vehicle emissions and to prepare California’s State Implementation Plan (“SIP”) required by the Clean Air Act (“CAA”). *See* CAL. HEALTH & SAFETY CODE §§ 39500, 39602. As such, ARB has the responsibility to adopt rules and regulations to attain the national ambient air quality standards (“NAAQS”) for criteria air pollutants, including particulate matter (“PM”) and nitrogen oxides (“NO_x”). California’s SIP outlines various and regional air quality plans and enforceable emission control limitations for the state to achieve NAAQS attainment. *See* 42 U.S.C. §§ 7410, 7511, 7512.

Because California’s efforts to regulate air emissions predate the enactment of the CAA, Congress provided California with unique authority to adopt and enforce its own standards relating to the control of emissions from new motor vehicles and

motor vehicle engines, as well as certain other in-use engines (i.e., non-new or used engines), recognizing the special environmental circumstances confronting California and the leadership the State has shown as a national laboratory for development of clean air technology. *See Motor and Equip. Mfrs. v. EPA*, 627 F.2d 1095, 1109 (D.C. Cir. 1979), cert. denied, 446 U.S. 952 (1980) (“*MEMA I*”). In this role, California has pioneered regulatory efforts to reduce smog-forming pollutants and to address climate change.

California Air Basins, particularly South Coast and San Joaquin, still need reductions of air pollutants, particularly PM and NO_x, in order to achieve federal mandates. Of the significant contributors to California’s air quality problems are nonroad in-use engines, which include vehicle fleets and engines such as currently in-use tractors, lawnmowers, bulldozers, cranes, locomotives, and marine craft. *See* 40 C.F.R. §§ 89.1, 1068.30. As of 2010, nonroad engines were estimated to be the fourth largest source of diesel PM in California (7 percent of total) and the sixth largest source of NO_x from all sources (4 percent of total). *See* California State Nonroad Engine Pollution Control Standards; Off-Road Compression Ignition Engines—In-Use Fleets, 78 Fed. Reg. 58,098-58,099 (Sept. 20, 2013) citing EPA–HQ–OAR–2008–0691–0002 Attachment A, at 13.

As part of its strategy to achieve the NAAQS, ARB has adopted regulations for, among other sources, in-use nonroad diesel-fueled fleets that establish

emission standards and operational control measures for such vehicles that are operated in California. *See* CAL. CODE REGS. tit. 13, §§ 2449-2449.2 (adopted April 4, 2008, effective June 16, 2008 and last amended on October 28, 2011, effective December 14, 2011).

Prior to the enactment of the 1990 Amendments to the CAA, pollution from nonroad engines was regulated solely by the states. After enactment of the 1990 CAA Amendments, EPA began to regulate *new* nonroad vehicles and engines while the states became generally prohibited from doing so. *See* 42 U.S.C. § 7547. As part of this regulatory framework, all states, including California, are prohibited from adopting or enforcing emissions standards from *new* nonroad engines less than 175 horsepower used in farm and construction vehicles, equipment and locomotives. *See id.* § 7543(e)(1).

In that same statute, Congress also expressly reserved to California the right to continue to control pollution from *in-use* nonroad engines if California obtains authorization from EPA. *See id.* § 7543(e)(2). Under this provision, also known as CAA Section 209(e)(2), the EPA Administrator must grant California authorization to implement and enforce its own regulations if California satisfies certain statutory preconditions.¹ *See id.* In providing California with special

¹ Other states have the option of adopting California's regulatory program, once approved by EPA. *See id.* § 7543(e)(2)(B).

authority to adopt its own regulations, Congress recognized the State's unique air quality problems and its history of achieving innovative solutions to those problems. *See MEMA I*, 627 F.2d at 1109.

ARB's regulations at issue here (for which EPA granted ARB's request for authorization that is now being challenged by Petitioners) are designed to reduce PM and NOx emissions from such in-use nonroad diesel fleet engines with a maximum power of 25 horsepower or greater. *See* 78 Fed. Reg. at 58,090. Such fleets are required to meet fleet average NOx and PM emissions standards or, alternatively, to comply with best available control technology ("BACT") requirements for the vehicles in those fleets. *See id.* ARB initially promulgated nonroad fleet requirements in 2007, but following hearings in 2008, 2009 and 2010, ARB significantly amended the regulations to, among other things, modify compliance dates and in-use performance requirements. *See id.* at 58,091. On March 1, 2012, after the formal adoption of the current amended version of the nonroad fleet requirements, ARB requested that EPA grant California the authorization under the authority of the CAA to enact and enforce them. *See id.* at 58,093. Following a public comment period, EPA granted ARB's request for authorization on September 20, 2013. *See id.* at 58,090.

ARB has a statutory mandate to reduce air pollution within California. If the Petitioners are successful in invalidating EPA's waiver, there will be a direct

impact on California's ability to: (1) achieve the emissions reductions required by the CAA and those necessary to come into attainment with the NAAQS as required by the CAA; and (2) protect the health and welfare of its citizens.

STANDARD OF REVIEW

Pursuant to D.C. Circuit Rule 28(d)(2), ARB joins and incorporates without repeating Respondent EPA's statement regarding the standard of review, *see* Respondent's Brief at pp. 18-19, and adds the following information to further amplify EPA's final paragraph as to statutory interpretation.

EPA's construction of the CAA waiver provision is governed by the two-step framework of *Chevron U.S.A., Inc. v. Natural Resources Def. Council, Inc.*, 467 U.S. 837, 842-43 (1984) ("*Chevron*"). First, "if the intent of Congress is clear, that is the end of the matter; for the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress." *Chevron*, 467 U.S. at 842-43. In determining the intent of Congress, the Court employs traditional statutory construction tools, looking to the statute's language, design and, where appropriate, legislative history. *See Public Citizen v. Nuclear Regulatory Comm'n*, 901 F.2d 147, 152 (D.C. Cir. 1990).

Second, "if the statute is silent or ambiguous with respect to the specific issue, the question for the court is whether the agency's answer is based on a permissible construction of the statute." *Id.* at 843; *see, e.g., Bluewater Network v.*

EPA, 372 F.3d 404, 411 (D.C. Cir. 2004). The agency’s view “governs if it is a reasonable interpretation of the statute—not necessarily the only possible interpretation, nor even the interpretation deemed most reasonable by the courts.” *Entergy Corp. v. Riverkeeper, Inc.*, 556 U.S. 208, 218 (2009).

SUMMARY OF ARGUMENT

ARB joins and incorporates the legal arguments presented in EPA’s brief. Cognizant of Circuit Rule 28(d)(2), ARB will not repeat EPA’s arguments, all of which ARB supports, but because of the importance of California’s in-use, nonroad diesel rules to ARB’s efforts to address CAA and NAAQS compliance, ARB offers this intervenor brief to supplement EPA’s brief on three specific points: (1) EPA’s interpretation of the CAA’s provisions concerning authorizations for California’s emissions program is sound; (2) EPA’s authorization determination must be upheld to ensure that California can continue to protect the health of its citizens by addressing the State’s unique and problematic air quality issues; and (3) California’s policy judgments concerning its air quality standards must continue to be afforded the deference Congress required in passing the CAA, and that has also been historically recognized by EPA and this Court.

The CAA generally preempts states from regulating air emissions from new nonroad vehicles and engines. California, alone among the states, may however adopt emission standards for *in-use* nonroad vehicles and engines with EPA’s

approval. 42 U.S.C. § 7543(e)(2)(A). Under Section 209(e)(2)(A)(ii), 42 U.S.C. § 7543(e)(2)(A)(ii), using virtually identical language as 209(b)(1)(B), 42 U.S.C. § 7543(b)(1)(B), EPA must grant California's request for authorization to set its own emission standards for in-use nonroad diesel vehicles and engines unless, among other things, EPA finds that California does not "need" its standards "to meet compelling and extraordinary conditions." 42 U.S.C. § 7543(e)(2)(A)(ii).

On September 20, 2013, EPA published its Notice of Decision granting ARB's March 1, 2012 request for authorization pursuant to the CAA allowing California to regulate certain diesel emissions from in-use nonroad engines pursuant to Section 209(e)(2)(A). *See* 78 Fed. Reg. 58,090 (Sept. 20, 2013). EPA thoroughly analyzed the "need" element, the text of section 209, the legislative history, as well as the California Petitioners' comments on the element and their "alternative interpretation" (that EPA is required to review, on a case by case basis, whether the specific standard is needed to meet compelling and extraordinary conditions). *Id.* at 58,098-58,111. EPA concluded that the authorization opponents had failed to meet their burden of demonstrating that California does not need its separate nonroad diesel engines emissions program to meet compelling and extraordinary conditions, and therefore EPA "cannot deny the authorization request under section 209(e)(2)(A)(ii)." *Id.* at 58,111. Petitioners' sole substantive challenge to EPA's decision is what they previously raised in their comment, and

that was rejected by EPA: that EPA misinterpreted section 209(e)(2)(A)(ii) to mean California's need for its nonroad emissions program as a whole, as opposed to California's need for the particular standards for which it seeks authorization.

EPA's decision must be upheld unless it is "arbitrary, capricious . . . or otherwise not in accordance with law," or if it fails to meet statutory, procedural, or constitutional requirements. 5 U.S.C. § 706(2); *American Trucking Ass'ns, Inc., v. EPA*, 600 F.3d 624, 627 (D.C. Cir. 2010) ("*ATA*"). In reviewing challenges to EPA waiver or authorization decisions² under 42 U.S.C. § 7543, California's regulations are "presumed to satisfy the waiver requirements" and "the burden of proof lies with the parties favoring denial of the waiver," and the Court must "presume that the Administrator acted lawfully and so conclude unless [the Court's] thorough inspection of the record yields no discernible rational basis for his action." *MEMA I*, 627 F.2d at 1105, 1121.

And because Petitioners' argument primarily concerns the statutory interpretation of section 209(e)(2)(A), the two-step analysis in *Chevron* applies. Unless Petitioners under *Chevron* Step One can show that Congress

² According to the CAA, EPA grants California a "waiver" (i.e., of federal preemption) for onroad regulations and an "authorization" for nonroad regulations. The standards California must meet to receive a waiver or an authorization are the same under the CAA. 42 U.S.C. § 7543(b) & (e)(2)(A). Although this particular case concerns EPA's authorization of California's nonroad regulations, analogous waiver case law applies equally to authorizations.

unambiguously spoke to and resolved the specific statutory issue in their favor, EPA need only show under *Chevron* Step Two that its interpretation is a reasonable one. This is a deferential standard, and EPA more than surpassed it—EPA’s interpretation is not just plausible, but the only one that accords with the Act’s language, history, purpose and administrative practice.

The three issues ARB’s Intervenor’s Brief addresses are as follows. First, EPA’s approval of California’s in-use nonroad regulations pursuant to Section 209(e)(2)(A) that Petitioners now challenge was clearly consistent with its authority under the CAA. While Petitioners claim that EPA should have applied a different “need” test, EPA’s interpretation is reasonable and consistent with the Act’s plain and unambiguous text and clearly satisfies the standards articulated in *Chevron*. Petitioners’ argument would compel EPA or ultimately this Court to oversee and reevaluate each of California’s specific emission standards and policy judgments behind each specific emission standard. This contradicts the Act’s plain text and explicit Congressional intent to provide California broad discretion to pioneer innovations that will lead the nation in air quality regulation.

Second, California experiences some of the worst air quality in the nation. California’s large numbers and high concentrations of motor vehicles and engines create compelling and extraordinary air quality issues that ARB is mandated to address. California’s nonroad emission program is essential to meeting the

NAAQS because emissions from nonroad sources represent a major portion of mobile source emissions in the state. Setting aside EPA's authorization of ARB's nonroad diesel emission regulations as Petitioners seek to do would severely undermine and make extremely difficult California's ability to obtain the emission reductions necessary to achieve the federally mandated NAAQS.

Third, the Act's text and legislative history, EPA's longstanding decisional history, and this Court's rulings all uniformly recognize that California must be afforded the "broadest possible discretion" to determine its own emission standards. EPA's interpretation promotes this important interest.

For these reasons, the petition should be denied.

ARGUMENT

As stated above, ARB joins and incorporates in EPA's legal arguments regarding the standard of review and the five legal issues raised in the Petitioners' brief. ARB also presents the following additional information and argument regarding the fourth and fifth items identified in EPA's statement of issues presented for review. *See* EPA Brief at p. 2.

I. THE CLEAN AIR ACT'S TEXT AND EPA'S LONGSTANDING ADMINISTRATIVE PRACTICE ESTABLISH THE REASONABLENESS OF EPA'S INTERPRETATION THAT SECTION 209(e)(2)(A)(ii) REFERS TO CALIFORNIA'S NEED FOR ITS ENTIRE NONROAD EMISSIONS PROGRAM AS A WHOLE

The central issue Petitioners raise is whether section 209(e)(2)(A)(ii) requires EPA to determine California's need for its entire nonroad emissions program as a whole before granting a waiver/authorization, as EPA and ARB contend, or, as Petitioners contend, whether EPA is required to determine California's need for each particular standard for which it seeks a waiver/authorization. EPA's interpretation should be upheld because it comports with the plain meaning of section 209(e)(2)(A)(ii) and EPA's longstanding interpretation.

A. The Statutory Text Confirms EPA's Interpretation

The plain language of Section 209(e)(2)(A)(ii) requires that EPA evaluate California's need for "such California standards." That phrase directly refers back to "California standards . . . in the aggregate" in the immediately preceding sentence in section 209(e)(2)(A). Thus, the plain meaning of section 209(e)(2)(A) is that EPA is to consider California's need for California's nonroad standards in the aggregate, not the need for the particular standards for which an authorization

is currently being sought. Even if EPA's interpretation were not compelled by the statute's language, it is a logical and permissible reading of the statutory text.

To obtain an authorization for the nonroad regulations at issue herein, California first must determine under section 209(e)(2)(A) that "California standards will be, in the aggregate, at least as protective of public health and welfare as applicable Federal standards." 42 U.S.C. § 7543(e)(2)(A). Once California has made this "protectiveness" determination, EPA "shall" grant the authorization unless it makes one of three findings. 42 U.S.C. § 7543(e)(2)(A)(i)-(iii). Petitioners only challenge EPA's decision not to make a finding that "California does not need such California standards to meet compelling and extraordinary conditions." *See* 42 U.S.C. § 7453(e)(2)(A)(ii).

The Act's text shows that section 209(e)(2)(A)(ii) requires EPA to consider California's need for its entire nonroad emissions program as a whole and not the particular standards for which the authorization is sought. As stated, the term "such California standards" in section 209(e)(2)(A)(ii) refers to those "California standards . . . in the aggregate" mentioned in the immediately preceding sentence. The term "California standards . . . in the aggregate," in turn, refers to California's entire emissions standards program because California must determine whether its standards "in the

aggregate”—that is, its entire program—are as protective as Federal standards. *See MEMA I*, 627 F.2d at 1110 & n.32.

Linking the term “such California standards” in section 209(e)(2)(A)(i) to “California standards . . . in the aggregate” is routine statutory construction. The word “such” typically refers back to the phrase’s immediately preceding use. *Middle S. Energy, Inc. v. FERC*, 747 F.2d 763, 769, n.4 (D.C. Cir. 1984), *citing Florida Power & Light Co. v. FERC*, 617 F.2d 809, 819, n. 2 (D.C. Cir. 1980) (“[a]s a matter of commonsensical construction, ‘any such new schedule’ in 205(e) refers to the immediately preceding ‘new schedules’ in § 205(d) rather than to the more general and more distant ‘schedules’ in § 205(c)”; *see United States v. Bowen*, 100 U.S. 508, 512-13 (1879) (construing “such pensioners” to mean those pensioners referred to in the “immediately preceding sentence in the same section” and insisting that “no sound canon of construction will authorize us to disregard” the term “such”); *but cf., North Broward Hosp. Dist. v. Shalala*, 172 F.3d 90 (D.C. Cir. 1999) (finding use of “such” ambiguous and deferring to agency’s statutory interpretation).

EPA’s interpretation of the statutory text also conforms to the Act’s structure. As the Administrator pointed out as to the identically worded section 209(b)(1)(B), a determination that this identically worded section only

applies to individual standards would conflict with the 1977 amendment allowing California to have individual standards less protective than a corresponding federal standard: “Congress could not have given this flexibility to California” and at the same time required that California demonstrate that it “needed” a particular standard. 49 Fed. Reg. 18,887, 18,890 n.24 (May 3, 1984).

B. EPA’s Longstanding Administrative Practice Interpreting the Analogous Section 209(b)(1)(B) Demonstrates the Reasonableness of EPA’s Interpretation of Section 209(e)(2)(A)(ii)

In determining whether to defer to an agency’s interpretation under *Chevron* Step Two, courts accord great weight to a longstanding statutory interpretation by an agency charged with its administration. *See, e.g., Barnhart v. Walton*, 535 U.S. 212, 221-22 (2002); *Secretary of Labor v. Excel Mining, LLC*, 334 F.3d 1, 6-8 (D.C. Cir. 2003) (according “particular deference” to 25-year-old agency interpretation). EPA’s administrative practice demonstrates the reasonableness of its current interpretation.

Since the Act’s inception, EPA has always evaluated whether California continued to have “compelling and extraordinary conditions” that warranted California having a separate program. For example, in 1979 EPA said:

[M]y review of California’s action under section 209(b)(1)(B) is

not based upon whether California has demonstrated a need for the particular regulations, but upon whether California needs standards to meet compelling and extraordinary conditions. 44 Fed. Reg. 38,660, 38,661 (July 2, 1979).

EPA provided a very thorough discussion of the analogous section 209(b)(1)(B) in a 1984 waiver decision. There EPA examined the Act's text, purpose and legislative history, and concluded that its section 209(b)(1)(B) analysis was confined to whether California needed its own program, not a particular standard. 49 Fed. Reg. 18,887. EPA has reaffirmed its "program-as-a-whole" interpretation in numerous waiver decisions since. *See, e.g.*, 51 Fed. Reg. 31,173 (Sept. 2, 1986); 52 Fed. Reg. 20,777 (June 3, 1987); 53 Fed. Reg. 7021 (Mar. 4, 1988); 53 Fed. Reg. 7022 (Mar. 4, 1988); 54 Fed. Reg. 6447 (Feb. 10, 1989); 55 Fed. Reg. 43,028 (Oct. 25, 1990); 57 Fed. Reg. 24,788 (June 6, 1992); 58 Fed. Reg. 4166 (Jan. 13, 1993); 59 Fed. Reg. 48,625 (Sept. 13, 1994); 69 Fed. Reg. 60,995 (Oct. 14, 2004); 70 Fed. Reg. 50322, 50323 (August 26, 2005); 71 Fed. Reg. 78,190, 78,192 (Dec. 28, 2006).

EPA's long administrative practice establishes the reasonableness of its interpretation that the analogous section 209(b)(1)(B) refers to California's need for a separate emissions program as a whole. That this Court characterized section 209(b)(1)(B) in the same way as EPA makes this conclusion even more emphatic. *See Motor & Equip. Mfrs. Ass'n v.*

Nichols, 142 F.3d 449, 453 (D.C. Cir. 1998) (referring to section 209(b)(1)(B) as requiring a showing that “California does not need *separate* state standards to meet ‘compelling and extraordinary conditions’” (emphasis added) (dicta)).

II. EPA’S DECISION TO AUTHORIZE CALIFORNIA’S NONROAD EMISSIONS PROGRAM RECOGNIZES CALIFORNIA’S UNIQUE POSITION AND SIGNIFICANT AIR QUALITY ISSUES

From its inception, the CAA recognized California’s importance to a successful national motor vehicle emission control program, mainly because California had already established itself as an innovator in reducing automobile pollution, and in part because Congress expected California to continue in that pioneering role. The Act gave California’s program a unique role alongside the federal emissions standards program creating the regulatory system that continues today. A decade later, in the 1977 Clean Air Act amendments, Congress expanded California’s discretion to develop its program to address the compelling air issues that California continues to address. Congress also permitted other States to adopt California’s standards.

California’s nonroad emission program is essential to meeting the NAAQS because emissions from nonroad sources represent a major portion of mobile source emissions in the state. In 2010, it was estimated that “the off-road vehicles subject to the off-road regulations were the fourth largest source of diesel PM in

California (7 percent of total) and the sixth largest source of NO_x from all sources (4 percent of total).” 78 Fed. Reg. at 58,099 citing EPA–HQ–OAR–2008–0691–0002 Attachment A, at 13. Two air basins in California—the South Coast Air Basin and the San Joaquin Valley Air Basin—are in nonattainment for both PM_{2.5} and the 8-hour ozone standard. Overall, to meet the federal PM_{2.5} standard in the South Coast and San Joaquin Valley Air Basins, NO_x emissions must be reduced by approximately 50 percent. Even greater reductions of NO_x, on the order of 75 to 88 percent, will be needed to achieve the federal 8-hour ozone standard in the by 2023. California’s nonroad emissions program enables California to achieve these important and necessary reductions. Setting aside EPA’s authorization of ARB’s nonroad diesel emission regulations as Petitioners seek to do would severely undermine and make extremely difficult California’s ability to obtain the emission reductions necessary to achieve the federally mandated NAAQS.

The federal-California partnership that Congress drafted into the CAA has served the national interest for more than four decades by allowing California to develop its own vehicle emissions program subject to a waiver/authorization process that defers to California’s judgment about its program’s content in light of California’s unique and significant air issues. This federal-California partnership has achieved striking results in addressing air quality issues and protecting public health from pollution—and it should continue to be upheld.

III. THIS COURT SHOULD DEFER TO CALIFORNIA'S POLICY JUDGMENTS IN SETTING CALIFORNIA'S STANDARDS

Congress's decision to give broad deference to California's judgment about its standards is embodied in the CAA's text and legislative history, recognized in EPA's administrative practice, and confirmed by this Court's decisions. Petitioners' attempt to set aside this important aspect of the CAA should be rejected because it contradicts the explicit Congressional intent to provide California broad discretion to make air quality rules and pioneer innovations that will lead the nation's fight against air pollution.

A. The Statutory Language Confirms That EPA and the Court Should Defer to California in Setting Its Air Quality Regulations

Under section 209(e)(2)(A), just as in the analogous language found in section 209(b), once California determines that its standards in the aggregate are as protective of public health and welfare as applicable federal standards, the EPA Administrator "shall" grant California's request for authorization (or, in the case of section 209(b), similarly waive the application of the preceding preemption clause) unless the Administrator makes one of three findings described in section 209(e)(2)(A). 42 U.S.C. §§ 7543(b), 7543(e)(2)(A). Section 209(e)(2)(A) thus assumes that EPA shall grant the authorization request unless the Administrator makes contrary findings (just as is the case regarding a waiver under section 209(b)). The Act's history "makes clear that

the burden of proof lies with the parties favoring denial of the waiver.”

MEMA I, 627 F.2d at 1122.

Congress reemphasized its deference to California’s policy judgment when it expanded California’s authority in 1977:

The Committee amendment is intended to ratify and strengthen the California waiver provision and to affirm the underlying intent of that provision, i.e. to afford California the broadest possible discretion in selecting the best means to protect the health of its citizens and the public welfare The Administrator, thus, is not to overturn California’s judgment lightly. Nor is he to substitute his judgment for that of the State.

H.Rep. No. 95-294 at 301-302, reprinted in 1977 U.S.C.C.A.N. 1077, 1380-81; *see* 40 Fed. Reg. 23,102, 23,103 (May 28, 1975) (describing legislative history). Thus, the statutory text plainly confirms deference to California’s air quality policy judgments.

B. Adhering to the CAA, EPA Consistently Defers to California’s Rulemaking

In upholding the deference Congress drafted into the CAA, EPA has “consistently adhered” to this deferential approach to California’s discretion when reviewing California’s waiver requests. *MEMA I*, 627 F.2d at 1122. “Congress has made it abundantly clear that [challengers] would face a heavy burden in attempting to show ‘compelling and extraordinary conditions’ no longer exist.” 49 Fed. Reg. at 18,890; *see, e.g.*, 59 Fed. Reg. 46,978 (Sept. 13, 1994); 58 Fed. Reg. 4166 (Jan. 13, 1993); 51 Fed. Reg. 2430 (Jan. 16, 1986). There are many

examples of EPA's deference:

- “Arguments concerning the wisdom” of California’s motorcycle standards, “all fall within the broad area of public policy. The EPA practice of leaving the decision . . . to California’s judgment is entirely consistent with the Congressional intent behind the California waiver provision.” 41 Fed. Reg. 44,209, 44,210 (Oct. 7, 1976).
- Argument that standards would not result in significant improvements in California air quality all fall within the EPA practice of leaving the decision on controversial matters to California’s judgment. 42 Fed. Reg. 31,639, 31,641 (June 22, 1977).
- Contentions that the number of vehicles subject to a California standard was too insignificant to mitigate any compelling and extraordinary conditions in California, and that regulations would not reduce air pollution all fall within the EPA practice of leaving matters of public policy to California’s judgment. 42 Fed. Reg. 25,755, 25,757 (May 18, 1977).
- Automakers’ contentions that California did not need particular standards and that the standards might not have a net beneficial health effect fall within EPA practice of leaving controversial public policy decisions to California’s judgment. 43 Fed. Reg. 15,490, 15,493 (April 13, 1978).
- Manufacturers questioned the need for the standards and the wisdom of California’s emission control strategy. The arguments, however, were not grounds for denying California a waiver. 43 Fed. Reg. 25,729, 25,736 (June 14, 1978).
- Objections pertaining to the wisdom of California’s judgment on various public policy matters are beyond the scope of review. 43 Fed. Reg. 32,182, 32,184 (July 25, 1978).
- Action regarding standards and their effect on and improvements in air quality and falls into public policy area left to California’s judgment. 44 Fed. Reg. 7807, 7808 (Feb. 7, 1979).
- Arguments that California did not need the regulations and had not

demonstrated an associated air quality benefit are outside section 209(b)(1)(B). 44 Fed. Reg. 38,660, 38,661 (July 2, 1979).

- Whether a proposed California requirement is likely to result in only marginal improvement in air quality not commensurate with its costs is not legally pertinent to the decision under section 209. It is not necessary for the ARB to quantify the exact emissions benefits its new standards will create when it is clear that its standards are significantly more stringent than the corresponding federal standards. 49 Fed. Reg. 18,887 (May 3, 1984); see 57 Fed. Reg. 38,502, 38,503 (Aug. 25, 1992); 59 Fed. Reg. 46,979.
- Pointing out that California correctly noted that the extent to which a given set of California standards will reduce air pollution in California is not pertinent to the need question. 58 Fed. Reg. 4166 (Jan. 13, 1993).
- Because California was intended by Congress to have broad discretion in choosing its air pollution control strategies, the extent of benefits that will be produced by the California LEV program is not pertinent to EPA's decision. 63 Fed. Reg. 6173, 6174 (Feb. 6, 1998).

EPA's historic interpretation and refusal to undermine California's individual standards is consistent with, and compelled by, Congress's decision to provide California the broadest possible discretion to develop its own emissions program. Petitioners' view would compel EPA to second-guess the effectiveness of California's proposed standards to determine whether California truly "needed" each and every particular standard, regardless of the pollution source and even for small program changes. But the CAA does not call for such intrusive review. Instead, the CAA clearly requires EPA to defer to California's policy judgments in creating new standards that lead the state's, and, frequently, the nation's fight

against motor vehicle/engine pollution. And that is precisely what EPA did in analyzing and approving California's request for authorization here.

C. California's Broad Discretion Is Also Recognized In This Court's Prior Decisions

This Court has also recognized California's broad discretion to create its own emissions program. This Court has ruled that California standards "are presumed to satisfy the waiver requirement and that the burden of proving otherwise is on whoever attacks them." *MEMA I*, 627 F.2d at 1121. Further, this Court has affirmed that "deferential standards" require only a " cursory review" for deciding whether to grant California a waiver. *Ford Motor Co. v. EPA*, 606 F.2d 1293, 1302 (D.C. Cir. 1979). And more recently, this Court rejected an attack to California's "need" for a nonroad engine standard under section 209(e)(2)(A)(ii) and again deferred to EPA's assessment that the standard was within California's policy judgment. *See ATA*, 600 F.3d at 628 (denying challenge to EPA decision granting waiver under section 209 (e)(2)(A)(ii)).

Moreover, ARB has reaffirmed that in-use, nonroad diesel vehicles continue to be "a significant source of air pollution emissions in California," that contribute to ongoing violations of the NAAQS and to continuing localized health risk.

Decision docket 0691-0283, at 1 (JA xx) (CARB Resolution 10-47), Decision

docket 0691-0270, at 18 (JA xx).³ Because of these undeniable and significant air pollution challenges that continue to exist in California, ARB has therefore found that without reductions from in-use nonroad diesel vehicles, neither San Joaquin Valley nor the South Coast Air basins will be able to attain applicable NAAQS standards. Decision docket 0691-0002, attachment A at 7 (JA xx). Congress's and EPA's historic deference to California's policy judgments about California's standards, and its need for such standards, must be upheld, and Petitioners have failed to satisfy their burden to show that EPA's interpretation or grant of authorization for California's in-use nonroad diesel emission regulations was improper.

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³ California still has that unique blend of geographical and climatic conditions that have been noted time and time again that, when combined with large numbers and high concentrations of automobiles and other motor vehicles and engines, create serious air pollution problems. *See, e.g.*, 49 Fed. Reg. at 18,890, 78 Fed. Reg. at 50098. In 2006, EPA confirmed that these compelling and extraordinary conditions existed, 71 Fed. Reg. 78,190, 78,192 (December 28, 2006), and nothing has changed since then to diminish California's need for its separate program. *See ATA*, 600 F.3d at 628 (upholding EPA waiver decision under waiver criterion nearly identical to section 209(b)(1)(B) because California continues to suffer from "some of the worst air quality in the nation"). California, and the South Coast and San Joaquin Air basins in particular, experiences some of the worst air quality in the nation. 74 Fed. Reg. 32,744, 32,762 (July 8, 2009), 78 Fed. Reg. at 58,098.

CONCLUSION

For all of the foregoing reasons, the petitions for review should be dismissed.

Respectfully submitted,

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CERTIFICATE OF COMPLIANCE

In accordance with Federal Rules of Appellate Procedure 32(a)(7)(C), counsel hereby certifies that the foregoing **Brief For Intervenor California Air Resources Board** contains 5630 words, as counted by counsel's word processing system and not counting those portions of the brief described Federal Rule of Appellate Procedure 32(a)(7)(B)(iii).

This brief complies with the typeface and style requirements of Federal Rules of Appellate Procedure 32(a)(5) and (6). The brief has been prepared in a proportionally spaced typeface in 14-point, Times New Roman font, using Microsoft Word 2010.

Dated: May 26, 2015

/s/ Ross H. Hirsch

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CERTIFICATE OF SERVICE

I hereby certify that the foregoing **Brief For Intervenor California Air Resources Board** was filed electronically with the Court's CM/ECF system, which will electronically serve all parties.

Dated: May 26, 2015

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ORAL ARGUMENT NOT YET SCHEDULED

**IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT**

Nos. 13-1283 & 13-1287

DALTON TRUCKING, INC., et al.,

Petitioners,

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, et al.,

Respondents.

**AMERICAN ROAD & TRANSPORTATION
BUILDERS ASSOCIATION**

v.

**UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY**

**On Petition for Review of Final Action of the
United States Environmental Protection Agency**

**FINAL BRIEF FOR RESPONDENTS UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY, et al.**

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July 16, 2015

1. Petitioners (No. 13-1283): Dalton Trucking, Inc.; Loggers Association of Northern California, Inc.; Robinson Enterprises, Inc.; Nuckles Oil Co., d/b/a Merit Oil Company; California Construction Trucking Association, Inc.; Construction Industry Air Quality Coalition; Delta Construction Company, Inc.; Southern California Contractors' Association, Inc.; Ron Cinquini Farming; and United Contractors (collectively, "California Petitioners").

Petitioners (No. 13-1287): American Road & Transportation Builders Association ("ARTBA").

2. Respondents: United States Environmental Protection Agency ("EPA") and Gina McCarthy, EPA Administrator.

3. Intervenors:

a. The State of California

4. Amici:

(B) Rulings Under Review

Petitioners seek review of the EPA action published at 78 Fed. Reg. 58,090 (Sept. 20, 2013) granting a request by the State of California for a waiver of preemption of emission standards for nonroad vehicles and engines pursuant to section 209(e) of the Clean Air Act, 42 U.S.C. § 7543(b).

(C) Related Cases

California Petitioners petitioned the U.S. Court of Appeals for the Ninth Circuit, challenging the same EPA action, in *Dalton Trucking, Inc. v. EPA*, No. 13-74019 (Nov. 15, 2013). On March 11, 2014, the Ninth Circuit issued an order, *sua sponte*, holding California Petitioners' petition in abeyance pending a determination by this Court regarding whether the instant petitions "were properly filed in [the D.C. Circuit] pursuant to 42 U.S.C. § 7607(b)(1)."

Respectfully submitted,

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GLOSSARY

APA	Administrative Procedure Act
ARTBA	American Road and Transportation Builders Association
CAA	Clean Air Act, 42 U.S.C. §§ 7401-7671q
CARB	California Air Resources Board
EPA	United States Environmental Protection Agency
LEV	Low Emission Vehicle
NAAQS	National Ambient Air Quality Standards
NO _x	Oxides of nitrogen
PM	Particulate matter
PM _{2.5}	Fine Particulate Matter
SIP	State Implementation Plan
TRU	Transportation Refrigeration Units

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STATEMENT OF JURISDICTION

Petitioners in both Nos. 13-1283 and 13-1287 challenge EPA's action under section 209(e)(2) of the Clean Air Act, 42 U.S.C. § 7543(e)(2), granting a request by the State of California for authorization of certain State emission standards for nonroad vehicles and engines. EPA's grant of California's authorization request is a final agency action within the meaning of the Clean Air Act's judicial review provision, 42 U.S.C. § 7607(b)(1), and EPA does not challenge the standing of Dalton Trucking et al. ("the California Petitioners") in Case No. 13-1283. EPA does not challenge Petitioner American Road & Transportation Builders Association's ("ARTBA's") standing to assert issues it raises in common with California Petitioners, but as discussed below, EPA contests ARTBA's standing to assert its separate "related" questions regarding the adoption of California's nonroad standards in other States.

STATUTES AND REGULATIONS

The pertinent statutes and regulations are set forth in the Petitioners' addenda and in the accompanying addenda of Respondents.

STATEMENT OF ISSUES

1. Does ARTBA have standing to raise three "related" and "subsidiary" questions in Case No. 13-1287, where ARTBA fails to identify any of its non-California members by name and fails to demonstrate that any injuries to these

members are concrete, non-speculative, redressable and traceable to the challenged action of EPA?

2. Is EPA's decision to authorize California's in-use, off-road diesel regulations ("Off-Road Diesel Decision" or "Decision") a nationally-applicable final agency action, properly reviewable in this Circuit, where the California Off-Road Fleet Requirements authorized by EPA may be automatically adopted by other States without further EPA review under 42 U.S.C. § 7543(e), and where California's requirements will affect both in-State and out-of-State off-road diesel fleets operating within that State?

3. Even if a regionally applicable action, is EPA's Decision properly reviewable in this Court because EPA constructively (and reasonably) determined that its action had nationwide scope or effect in light of the California requirements' impact on out-of-State fleets?

4. In deciding to approve California's Off-Road Diesel Fleet Requirements, did EPA reasonably consider whether California needed its nonroad engine emissions program as a whole?

5. Did EPA reasonably conclude, under either EPA's construction of 42 U.S.C. § 7543(e) or the one favored by petitioners, that the parties favoring denial of the waiver did not meet their burden of proof?

STATEMENT OF THE CASE

I. INTRODUCTION

This case involves consolidated petitions for review of EPA's approval of a request by the State of California for authorization of regulations to reduce emissions of particulate matter and oxides of nitrogen from in-use, nonroad diesel engines. Section 209(e) of the Clean Air Act, 42 U.S.C. § 7543(e), recognizes California's special role in regulating emissions from mobile sources in light of that State's unique air pollution problems and its historic cutting-edge role in developing effective mobile source emission controls. Accordingly, the law gives California broad discretion to set emission standards for specified nonroad vehicles and engines, and it directs EPA to authorize California's standards unless EPA affirmatively makes at least one of three statutorily-prescribed findings. Once California standards are authorized by EPA, identical standards can be adopted and enforced elsewhere.

Petitioners ARTBA and California Petitioners together represent a diverse set of companies and trade groups associated with logging, farming and construction interests. Petitioners focus much of their argument not on the merits of EPA's approval action, but on whether this Court is the correct venue. In part, petitioners apparently seek an advisory opinion on the question of whether other States may adopt California's nonroad standards. In any case, because EPA's approval action has national applicability, this is the correct venue for review of the Decision applying

section 307 of the CAA, 42 U.S.C. § 7607, and any separate review of States' authority to adopt California's nonroad standards is unripe.

With respect to the merits, Petitioners argue that EPA incorrectly applied the statutory criteria at 42 U.S.C. § 7543(e)(2)(A)(ii) in approving California's nonroad diesel engine standards. In fact, EPA reasonably applied its longstanding interpretation in concluding that the criterion in section 7543(e)(2)(A)(ii) calls for an agency assessment of whether California needs a nonroad emissions program as a whole. Moreover, EPA made clear that even using Petitioners' proposed interpretation of the statutory criteria, a fully developed administrative record led EPA to reasonably determine that the authorization's opponents did not meet the burden of proof needed for EPA to decline the authorization, and the same result would have been reached.

II. STATUTORY AND REGULATORY BACKGROUND

A. CAA Section 209(e) Preemption of Emission Standards

The Clean Air Act ("CAA"), 42 U.S.C. §§ 7401-7671q, establishes a comprehensive program to control and improve the nation's air quality. While the Act generally preserves States' flexibility to regulate air emissions to meet this goal, Title II of the CAA, *id.* §§ 7521-90, governing "emission standards for moving sources," strikes a different balance. *Inter alia*, Title II's Part A – which addresses

both new automobiles and new and other “nonroad” vehicles and engines¹ – authorizes EPA to promulgate nationally applicable emission standards, 42 U.S.C. §§ 7521, 7547, and generally preempts States from adopting their own standards. *Id.* §§ 7543(a), 7543(c). It also preserves a special role for California in regulating emissions from mobile sources, in light of that State’s unique air pollution problems and its pioneering efforts to develop effective mobile source emission controls. *Id.*; see also *Motor & Equip. Mfrs. Ass’n, Inc. v. EPA*, 627 F.2d 1095, 1108-11 (D.C. Cir. 1979) (“*MEMA I*”) (discussing legislative history).

For example, under CAA section 209(e), 42 U.S.C. § 7543(e), States are expressly preempted from adopting “any standard or other requirement relating to the control of emissions” from new engines used in construction or farm equipment or vehicles and that are under 175 horsepower, or from new locomotive engines. *Id.* § 7543(e)(1)(A), (B).² For all other nonroad engines (including engines that are no longer “new”), States are preempted from adopting such standards and requirements, *except that* California may adopt and enforce such regulations if EPA authorizes it to

¹ The term “nonroad engines” describes a wide variety of mobile, non-highway engines, including engines used in tractors, lawnmowers, construction equipment such as bulldozers and cranes, locomotives, and marine craft. See 40 C.F.R. §§ 89.1, 1068.30. The terms “nonroad” and “off-road” have synonymous meanings in this brief.

² For the nonroad engines and equipment relevant to this case, EPA regulations define the term “new” to mean “a domestic or imported nonroad vehicle the equitable or legal title to which has never been transferred to an ultimate purchaser.” (footnote continued . . .)

do so, according to specific enumerated criteria. *Id.* § 7543(e)(2). For these other non-road engines and vehicles – the subject of this case – the Act provides:

[T]he Administrator shall, after notice and opportunity for public hearing, authorize California to adopt and enforce standards and other requirements relating to the control of emissions from such vehicles or engines if California determines that California standards will be, in the aggregate, at least as protective of public health and welfare as applicable Federal standards. No such authorization shall be granted if the Administrator finds that –

- (i) the determination of California is arbitrary and capricious,
- (ii) California does not need such California standards to meet compelling and extraordinary conditions, or
- (iii) such California standards and accompanying enforcement procedures are not consistent with this section [of the Act].

Id. § 7543(e)(2)(A). Under section 7543(e)(2)(B)(i), subject to certain conditions, once California’s “standards and implementation and enforcement” for qualifying nonroad engines are authorized, other States may “adopt and enforce” identical provisions as their own. *Id.* § 7543(e)(2)(B)(i).

Congress established EPA’s authority to promulgate emission standards for nonroad engines in the Clean Air Act Amendments of 1990, 42 U.S.C. § 7547; *see* Pub. L. No. 101-549, § 213, 104 Stat. 2399, 2500 (1990); *see also Engine Mfrs. Ass’n v. EPA*, 88 F.3d 1075, 1080-82 (D.C. Cir. 1996). Section 7543(e), including its waiver provision for California, was closely modeled after a similar provision for new

40 C.F.R. § 1074.5 (definition of “new”).

vehicles contained in 42 U.S.C. §§ 7507 and 7543(a), (b) (CAA subsections 177 and 209(a) and (b)), adopted in 1977.

Section 7543(b) reflects congressional intent to give California broad discretion to set emission standards for new motor vehicles; accordingly, EPA is required to grant a request from California to “waive” federal preemption³ unless EPA affirmatively makes at least one of the findings laid out in subsections 7543(b)(1)(A) through (C) -- *i.e.*, unless EPA finds that California’s “protectiveness determination . . . was arbitrary and capricious; that the State does not need the standards; or that the standard and enforcement procedures are inconsistent with [the CAA’s emission requirements for new motor vehicles].” *MEMA I*, 627 F.2d at 1120-23. In any challenge to a waiver under 7543(b), “the burden of proof lies with the parties favoring denial of the waiver.” *Id.* at 1121. EPA is not required to affirmatively find that the conditions warranting denial do not exist. *Id.* at 1120. Rather, EPA must examine the evidence submitted by those opposed to a waiver to determine if it is sufficient to overcome the presumption that the waiver should be granted. *Id.* at 1122.

³ In contrast to section 7543(b), which authorizes EPA to “waive” federal preemption of state standards for new motor vehicles for California, section 7543(e) establishes EPA’s power to “authorize” California to adopt nonroad emission standards in the absence of federal standards. For convenience, at various times in this brief EPA uses the term “waiver” to refer to both settings.

In *MEMA I*, this Court examined the legislative history of section 7543(b) and noted that “California’s unique problems and pioneering efforts justified a waiver of the preemption section to the State of California.” *See MEMA I*, 627 F.2d at 1109 (citing S. Rep. No. 90-403, 90th Cong., 1st Sess. 33 (1967)).

According to the Committee, the advantages of the California exception included the benefits for the Nation to be derived from permitting California to continue its experiments in the field of emissions control benefits the Committee recognized might “require new control systems and design” [S. Rep. No. 90-403 at 33 (1967)] and the benefits for the people of California to be derived from letting that State improve on “its already excellent program” of emissions control, *id.* ¶ There is no intimation in the Senate Committee report that the waiver provision was designed to permit California to adopt only a portion of such a program.

MEMA I, 627 F.2d at 1109-10.

Congress amended subsection 7543(b) in 1977, to allow California to consider the protectiveness of its standards “in the aggregate,” rather than requiring that each standard proposed by the State be as or more stringent than its federal counterpart.

As this Court noted in *MEMA I*:

The intent of the 1977 amendment was to accommodate California’s particular concern with oxides of nitrogen, which the State regards as a more serious threat to public health and welfare than carbon monoxide. California was eager to establish oxides of nitrogen standards considerably higher than applicable federal standards, but technological developments posed the possibility that emission control devices could not be constructed to meet both the high California oxides of nitrogen standard and the high *federal* carbon monoxide standard.

627 F.2d at 1110 n.32 (emphasis added). Whereas federal law *pre*-1977 required

California to show that *each* of its separate emissions standards was “more stringent”

than corresponding federal law, the 1977 amendments specified that, to obtain a waiver, California needed to show “only that [its] standards in the aggregate were at least as protective of public health and welfare as [federal law].” *Id.* This test – referred to herein as the “protectiveness” test – “permits the State to maintain a high standard for oxides of nitrogen but a standard for carbon monoxide somewhat lower than the federal standard.” *Id.*

In all material respects, the waiver provisions set forth for new motor vehicles in section 7543(b) are identical to the corresponding provisions for nonroad vehicles in subsection 7543(e). *Compare* 42 U.S.C. § 7543(b)(1)(A) through (C) and 42 U.S.C. § 7543(e)(2)(A)(i) through (iii). Petitioners do not dispute this fact. Petitioners’ Brief (“Pet. Br.”) at 50 (“relevant portions” of 42 U.S.C. § 7543(e) and 42 U.S.C. § 7543(b) are “almost identical”).

Finally, it bears note that EPA’s own authority to adopt emission standards for off-road engines is limited to *new* equipment and does not include the authority to control in-use, off-road emissions as California has here. *See* 42 U.S.C. § 7547(a)(2), (3). As California noted when it submitted its Off-Road Requirements to EPA, “California is the only governmental jurisdiction in the nation entrusted with authority to adopt emission standards and other emission-related requirements for in-use nonroad engines.” J.A. 721-22 (EPA-HQ-OAR-2008-0691-0270, at 17-18 (supplemental request for EPA authorization) (hereafter, “Decision docket 0691-

xxxx”). *See generally Am. Trucking Ass’n v. EPA*, 600 F.3d 624, 625 (D.C. Cir. 2010) [“ATA”]; *Engine Mfrs. Ass’n v. EPA*, 88 F.3d 1075, 1080, 1089 (D.C. Cir. 1996).

B. EPA’s Regulation to Implement 42 U.S.C. § 7543(e).

In 1994, EPA promulgated regulations implementing 42 U.S.C. § 7543(e). *See* 59 Fed. Reg. 36,969 (July 20, 1994) (“1994 Waiver Rule”). As part of its rulemaking, EPA addressed two regulatory provisions that are relevant here.

First, the 1994 Waiver Rule’s preamble confirmed that while California may adopt nonroad standards for eligible nonroad engines or vehicles before receiving EPA authorization under 42 U.S.C. § 7543(e)(2)(A), enforcement of California’s standards is conditioned upon EPA’s ultimate approval. 59 Fed. Reg. at 36,982. EPA’s regulation, now codified at 40 C.F.R. §§ 1074.101(a), (b), specifies that California must “include the record on which the state rulemaking was based” and EPA “will provide notice and opportunity for a public hearing regarding such requests.” *See also* 59 Fed. Reg. at 36,987 (promulgating original version of regulation, at 40 C.F.R. §§ 85.1604(a), (b)(1994)). Second, the preamble makes clear that no further EPA authorization is required before other States adopt California standards approved by EPA. “[T]he Act neither requires that states obtain EPA authorization to impose California’s nonroad engine standards nor authorizes [EPA] to require that states do so.” 59 Fed. Reg. at 36,983. Accordingly, EPA’s corresponding regulations specify that following notice to EPA’s Administrator, any eligible State other than California may “adopt and enforce emission standards for any period for nonroad

engines and vehicles” as long as the standards (and the State’s corresponding implementation and enforcement measures) are “identical . . . to the California standards authorized” by EPA. 40 C.F.R. § 1074.110. *See also* 59 Fed. Reg. at 36,987 (promulgating original version of regulation, at 40 C.F.R. § 85.1606).⁴

C. This Court’s Venue Under 42 U.S.C. § 7607(b)(1)

CAA section 307(b)(1), 42 U.S.C. § 7607(b)(1), governs judicial review of certain specified EPA actions or “any other final action” taken by EPA under the Act. *See generally Harrison v. PPG Indus.*, 446 U.S. 578 (1980). Under the first sentence of this provision, a petition for review challenging one of the listed actions, or any “nationally applicable regulations,” may be filed “*only* in the United States Court of Appeals for the District of Columbia.” 42 U.S.C. § 7607(b)(1) (emphasis added). By contrast, under the second sentence of this subsection, petitions challenging a final action that is “locally or regionally applicable may be filed only in the United States Court of Appeals for the appropriate circuit.” *Id.* Finally, under the third sentence of the subsection, even where a petition challenges a locally or regionally applicable action, the petition still “may be filed only in the [D.C. Circuit] if such action is based on a determination of nationwide scope or effect and if in taking such action the

⁴ In accordance with 42 U.S.C. § 7543(e)(2)(B), EPA regulations further provide that outside of California, adopting States must provide two years of lead time before the California standards take effect in the adopting State. 40 C.F.R. § 1074.110(a)(4), (5).

Administrator finds and publishes that such action is based on such a determination.”

Id.

This Court has found that 42 U.S.C. § 7607(b)(1) is a venue provision rather than a jurisdictional provision, the application of which can be waived. *Texas Mun. Power Agency v. EPA*, 89 F.3d 858, 867 (D.C. Cir. 1996).

III. FACTUAL BACKGROUND

A. California’s Authority to Regulate Off-Road Diesel Fleet Engines

On March 1, 2012, California’s Air Resources Board (“CARB”) requested that EPA authorize its regulations to reduce particulate matter (PM) and oxides of nitrogen (NO_x) emissions from in-use off-road (nonroad) diesel-fueled equipment with engines greater than 25 horsepower (hereafter, “Off-Road Fleet Requirements” or “Fleet Requirements”). The request to EPA was CARB’s third associated with its regulation of in-use, nonroad, diesel-fueled vehicles. CARB originally asked EPA to authorize in-use off-road fleet regulations in August 2008, and it did so again in February 2010, following amendments adopted by the State. *See* 73 Fed. Reg. 58,585 (Oct. 7, 2008) and 73 Fed. Reg. 67,509 (Nov. 14, 2008) (2008 CARB proposal); 75 Fed. Reg. 11,880 (Mar. 12, 2010) (2010 CARB proposal). CARB’s March 1, 2012 request followed additional amendments to its off-road fleet regulations adopted by the State in December 2011. *See generally* 78 Fed. Reg. 58,090, 58,093 (Sept. 20, 2013).

EPA has previously recognized California’s long-term need for a separate and

distinct vehicle emissions program “to address compelling and extraordinary conditions” in the State. *See, e.g.*, 74 Fed. Reg. 32,744, 32,762 (July 8, 2009).

“California – the South Coast and San Joaquin Air basins in particular – continues to experience some of the worst air quality in the nation.” *Id.*; *see also* 78 Fed. Reg. at 58,098.⁵ The State presently fails to meet national ambient air quality standards (“NAAQS”) for both fine particulate matter (“PM_{2.5}”) and ozone, and NOx leads to atmospheric formations of both. 78 Fed. Reg. at 58,098.⁶

As CARB noted when its off-road fleet regulations were first proposed, existing, in-use diesel vehicles are a significant source of PM and NOx emissions within the State.

Off-road vehicles are a significant source of diesel particulate matter, as well as NOx emissions that lead to ozone and ambient PM. Statewide, they are responsible for nearly a quarter of the total PM emissions from mobile diesel sources and nearly a fifth of the total NOx emissions from mobile diesel sources. Although increasingly stringent new engine standards are reducing emissions from off-road diesel vehicles over time, because of their durability, most [off-road diesel] vehicles operate for several decades before being retired. Thus, in-use off-road diesel vehicles would continue to pose significant health risk for many years if this proposed regulation is not adopted

⁵ In 2010, EPA granted requests by California to redesignate the San Joaquin Valley and the South Coast Air Basin as “extreme” nonattainment areas for the 8-hour ozone NAAQS. 75 Fed. Reg. 24,409 (May 5, 2010). They are the only two ozone nonattainment areas classified as extreme in the entire Nation.

⁶ The NAAQS are national air quality standards established by EPA to protect public health and welfare, and which States have the primary responsibility to implement. *See* 42 U.S.C. §§ 7409, 7410, 7502.

Decision docket 0691-0002, attachment A at 7-10 (JA 794-97).

In 2010, CARB reaffirmed that in-use, nonroad diesel vehicles continued to be “a significant source of air pollution emissions in California,” one that contributed to ongoing violations of the NAAQS and to continuing localized health risk, “including premature death.” Decision docket 0691-0283, at 1 (JA 736) (CARB Resolution 10-47). CARB reaffirmed that conclusion in 2012. Decision docket 0691-0270, at 18 (JA 722). In particular, CARB emphasized that without reductions from in-use off-road diesel vehicles, neither San Joaquin Valley nor the South Coast Air basins will be able to attain applicable NAAQS standards, even with the anticipated reduction in emissions associated with newer, cleaner vehicles. Decision docket 0691-0002, attachment A at 7 (JA 794). *See also id.* at 10 (JA 797) (“[w]hile all sources of NO_x emissions are important, off-road diesel vehicles are one of four major categories that will determine whether California is able to meet the 2014 deadline for PM_{2.5} attainment in the South Coast Air Basin”).

EPA invited comment on CARB’s Fleet Requirements on August 21, 2012, 77 Fed. Reg. 50,500 (Aug. 21, 2012), and held a public hearing on CARB’s request on September 20, 2012. 78 Fed. Reg. at 58,093. Comments were received from counsel for ARTBA, Dalton, and other individual California Petitioners, during this time. *See id.* at 58,094 n.29 (listing written comments). On September 20, 2013, EPA authorized California’s Fleet Requirements, finding that the grounds needed to

disapprove California's standards under 42 U.S.C. § 7543(e)(2)(A) were not met. 78 Fed. Reg. at 58,091, 58,097, 58,111-19. Because its decision affected "not only persons in California, but also entities outside the state who must comply with California's requirements," EPA determined that its action was one of national applicability for purposes of 42 U.S.C. § 7607(b)(1). 78 Fed. Reg. at 58,121.

B. Overview of California's Fleet Requirements

California's Off-Road Fleet Requirements establish statewide performance standards applicable to any person, business, or government agency that owns and/or operates in-use non-road diesel vehicles in California with a maximum horsepower ("hp") of 25 hp or greater. 78 Fed. Reg. at 58,091. While specific aspects of California's off-road fleet regulations have changed since they were first proposed, a summary by CARB staff at that time still holds true.

The scope of the regulation is far-reaching; vehicles of dozens of types used in over 8,000 fleets, in industries as diverse as construction, air travel, manufacturing, landscaping, and ski resorts The regulation would affect the warehouse with one diesel forklift, the landscaper with a fleet of a dozen diesel mowers, the county that maintains rural roads, the landfill with a fleet of dozers, as well as the large construction firm or government fleet with hundreds of diesel loaders, graders, scrapers, and rollers.

JA 788 (Decision docket 0691-0002, attachment A at 1) (initial CARB request for EPA authorization).

The Fleet Requirements apply to any qualifying vehicles operating within California, regardless of where such vehicles are registered or owned. The regulation

defines “Fleet” as “all off-road vehicles and engines owned by a person, business or government agency that are operated within California and are subject to the regulation. A fleet may consist of one or more vehicles. A fleet does not include vehicles that have never operated in California.” JA 503 (Decision docket 0691-0292, at 6) (promulgating Cal. Admin. Code tit. 13, § 2449(c)(20)). EPA’s administrative record associated with its Decision is replete with references to the impact CARB’s Fleet Requirements may have on fleets outside the State. For example, the 2008 CARB staff report associated with CARB’s initial off-road fleet rule stressed that the regulation “would establish fleet average emission rate targets for PM and NO_x for all off-road vehicles operating in the state, regardless of whether they are California based.” JA 788 (Decision docket 0691-0002, attachment A) (California Air Resources Board Staff Report: Initial Statement of Reasons for Proposed Rulemaking; Proposed Regulation for In-Use Off-Road Diesel Vehicles), at 1. In responses to comments on its proposed 2010 rule, CARB noted that “[o]ut-of-state fleets will have to comply with all the requirements of the Off-Road regulation, if they choose [to] operate within the State.” JA 1667 (Decision docket 0691-0291, at 56) (CARB Final Statement of Reasons for Rulemaking, Dec. 17, 2010). Similarly, at EPA’s September 2012 public hearing on the Fleet Requirements, a CARB official stressed that “[t]he regulation applies equally to all equipment that is operated in the state, regardless of where the fleet itself is located.” JA 698-99 (Decision docket 0691-0298, at 122-23) (Sept. 20, 2012 public hearing transcript).

C. EPA's Final Action and Petitioners' Challenges

Previous cases reviewing EPA waivers for CARB vehicle emission standards, under both 42 U.S.C. §§ 7543(b) and (e), have all been heard in the D.C. Circuit. *See, e.g., Motor & Equip. Mfrs. Ass'n v. EPA*, 627 F.2d 1095 (D.C. Cir. 1979); *Motor & Equip. Mfrs. Ass'n v. Nichols*, 142 F.3d 449 (D.C. Cir. 1998); *ATA*, 600 F.3d at 624. Against this background, EPA expressly found that its Off-Road Diesel Decision would “indirectly affect not only persons in California, but also entities outside the [S]tate who must comply with California’s requirements.” 78 Fed. Reg. at 58,121. “For this reason, [EPA] determine[d] and [found]” the Decision to be an action of “national applicability,” subject to judicial review under 42 U.S.C. § 7607(b)(1) “only in the United States Court of Appeals for the District of Columbia Circuit.” *Id.*

On November 18 and 19, 2013, respectively, California Petitioners and ARTBA filed timely challenges to EPA’s Off-Road Diesel Decision in this Court, *see Dalton Trucking, Inc. et al. v. EPA*, No. 13-1283 (D.C. Cir. filed Nov. 18, 2013) and *Am. Road & Transp. Builders Ass’n v. EPA*, No. 13-1287 (D.C. Cir. filed Nov. 19, 2013). In the belief that EPA’s Decision was purely a “regionally applicable” action, California Petitioners also petitioned for review in the Ninth Circuit. *Dalton Trucking, Inc., et al. v. EPA*, No. 13-74019 (9th Cir. filed Nov. 18, 2013). ARTBA did not file its own petition for review in the Ninth Circuit, but instead sought and was granted leave to intervene on California Petitioners’ behalf. *Dalton Trucking, Inc. v. EPA*, No. 13-74019 (9th Cir. Dkt. # 13) (Dec. 31, 2013).

EPA moved to dismiss, or transfer, California Petitioners' Ninth Circuit petition to this Court, *id.*, Dkt. 14 (Jan. 10, 2014), but the Ninth Circuit ordered that EPA's motion be held in abeyance pending a D.C. Circuit ruling as to whether Petitioners' respective challenges were "properly filed" here. *Id.*, Dkt. 19 (Mar. 11, 2014).

STANDARD OF REVIEW

The Court's review of EPA's decision not to withhold approval of California's Fleet Requirements is governed by section 706 of the Administrative Procedure Act, 5 U.S.C. § 706. *MEMA I*, 627 F.2d at 1105. Thus, EPA's decision must be upheld unless it is "arbitrary, capricious . . . or otherwise not in accordance with law," or if it fails to meet statutory, procedural, or constitutional requirements. 5 U.S.C. § 706(2). *See also ATA*, 600 F.3d at 627. Moreover, under *MEMA I*, in reviewing challenges to EPA waiver decisions under 42 U.S.C. § 7543, California's regulations are "presumed to satisfy the waiver requirements" and "the burden of proof lies with the parties favoring denial of the waiver." 627 F.2d at 1121.

The "arbitrary or capricious" standard presumes the validity of agency actions, and a reviewing court is to uphold an agency action if it satisfies minimum standards of rationality. *Small Refiner Lead Phase-Down Task Force v. EPA*, 705 F.2d 506, 519-21 (D.C. Cir. 1983); *Ethyl Corp. v. EPA*, 541 F.2d 1, 34 (D.C. Cir. 1976) (en banc). Where EPA has considered the relevant factors and articulated a rational connection between the facts found and the choices made, its regulatory choices must be upheld.

Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983). The Court must “presume that the Administrator acted lawfully and so conclude unless [the Court’s] thorough inspection of the record yields no discernible rational basis for his action.” *MEMA I*, 627 F.2d at 1105.

With regard to questions of statutory interpretation, as the agency to which Congress expressly delegated implementation authority, EPA’s interpretation of the CAA “governs if it is a reasonable interpretation of the statute – not necessarily the only possible interpretation, nor even the interpretation deemed *most* reasonable by the courts.” *Entergy Corp. v. Riverkeeper, Inc.*, 556 U.S. 208, 218 (2009) (emphasis in original) (citing *Chevron U.S.A., Inc. v. NRDC*, 467 U.S. 837, 843-44 (1984)). In evaluating EPA’s interpretation of section 7543, the Court must affirm EPA’s construction unless petitioners show “by clear and convincing evidence” that its construction is unreasonable. *MEMA I*, 627 F.2d at 1106.

SUMMARY OF THE ARGUMENT

California Petitioners have standing to assert the California-based issues raised in their petition (No. 13-1283), but ARTBA fails to demonstrate its separate standing to raise several separate questions relating to the implications of EPA’s Decision for other States. ARTBA fails to identify a single non-California member that has suffered imminent harm as a result of EPA’s waiver decision and thus has failed to make the minimum threshold showing needed to demonstrate standing.

Regardless of ARTBA's standing to raise its unique issues, the arguments it and California Petitioners present to challenge venue in this Court are invalid. For numerous reasons, these petitions were properly filed in this Court. First, venue in this Court is proper because EPA's Off-Road Diesel Decision is a nationally-applicable final action because other States may automatically adopt California's nonroad standards without further EPA review under 42 U.S.C. § 7543(e). This Court has long recognized California's historical "pioneering efforts" in vehicle emissions technology, and Congress' expectation that California would remain at the cutting edge of national vehicle emission standards innovation. *MEMA I*, 627 F.2d at 1109-10. Congress carved out a special role for California in section 7543 to develop pioneering mobile emissions standards available for adoption throughout the Nation, and it is fully appropriate that EPA's decisions authorizing such standards be treated as nationally-applicable actions, reviewable by this Court.

EPA's Decision is also a nationally-applicable action because CARB's Fleet Requirements would regulate off-road diesel fleets based *both* in California and out of State. Whether an action is "nationally-applicable" or "locally- or regionally-applicable" turns on who is regulated by the action, not by the *de facto* impacts of the regulation. *Natural Res. Def. Council, Inc. v. Thomas*, 838 F.2d 1224, 1249 (D.C. Cir. 1988). The plain language of California's nonroad diesel standards and the administrative record reviewed by EPA both make clear that the standards apply to

all qualifying nonroad engine fleets operated within California, regardless of where such fleets are based.

Second, venue in this Court is proper because EPA determined that its Off-Road Diesel Decision was one with “nationwide scope or effect.” Under 42 U.S.C. § 7607(b), even petitions for review challenging locally or regionally applicable EPA actions may be filed only in the D.C. Circuit, where EPA finds that such actions have nationwide scope or effect. EPA made just such a finding here. Congress recognized the importance of creating uniform interpretations of nationally-applicable agency actions under the Clean Air Act by centralizing judicial review of such actions in this Court. Congress similarly authorized this Court to review regionally-applicable final actions determined by EPA to have nationwide scope and effect. Such a finding is among the “rare circumstances” where agency action is unreviewable under the APA, 5 U.S.C. § 701(a)(2); *Lincoln v. Vigil*, 508 U.S. 182, 190-91 (1993). At a minimum, even if reviewable, EPA’s interpretation of the statute is entitled to significant deference and must be upheld as long as it is reasonable. *Chevron*, 467 U.S. at 842-44. In this case, EPA’s “nationwide scope or effect” determination was based on its consistent interpretation of section 7543 and an analytical approach EPA has applied for decades. It must, therefore, be upheld.

On the merits, EPA reasonably concluded that California’s need for its nonroad diesel program should be determined based on consideration of California’s need for its nonroad program as a whole. EPA reasonably interpreted the criterion

set forth in section 7543(e)(2)(A)(ii) – whether California needs “such California standards” to meet compelling and extraordinary conditions – to refer back to the introductory language of section 7543(e)(2)(A), which requires California to determine whether its “standards,” “in the aggregate” – a phrase that refers to California’s nonroad program as a whole -- are at least as protective as applicable federal standards. Amendments to the Clean Air Act in 1977, which allow the protectiveness determination to be made “in the aggregate,” support EPA’s reading of the statute. It would be anomalous for Congress to permit California to have a program in which some standards were less stringent than federal standards so long as the whole is more protective, yet simultaneously require California to justify its need for each standard individually.

EPA’s reading of the statute is also consistent with congressional purpose. One of the central bases for Congress’ decision to allow California to obtain waivers from federal preemption was to allow that State to continue to act as a laboratory for innovation in developing new pollution control technologies. To that end, Congress intended to grant California the “broadest possible discretion.” *MEMA I*, 627 F.2d at 1110-11. Considering California’s need for its nonroad program as a whole is consistent with this congressional intent, whereas Petitioners’ proposal to require EPA to consider each element of the program in isolation is not.

Finally, even if petitioners’ interpretation of section 7543 were the only reasonable interpretation of the statute under *Chevron*, and it is not, there is no basis

to vacate EPA's decision as petitioners request, in light of the ample record demonstrating that EPA's decision was reasonable even under the alternative test petitioners propose. EPA did not merely provide an extensive explanation in its Decision of why EPA's traditional interpretation is a better reading of the text of subsections 7543(b) and (e), and why California was entitled to a waiver under its traditional interpretation. EPA also extensively analyzed whether California was entitled to a waiver under the approach proposed by petitioners, and found that it was.

Petitioners offer only a bare, unsupported claim that the record fails to show California's need for its proposed standards to meet compelling and extraordinary conditions in the State. This unsupported assertion is insufficient to overturn the presumption of validity of California's waiver and EPA's reasoned evaluation of petitioners' claims. Petitioners also claim that EPA deprived the public of "an opportunity to make meaningful comments on whether a waiver should be granted."

In fact, the record shows that this is far from the case and that EPA examined comments from petitioners, and others, under both EPA's traditional test and under the test petitioners favor. EPA's notice of decision shows that its action was reasonable under either test.

ARGUMENT

I. THIS COURT SHOULD REVIEW AND DETERMINE ARTBA'S STANDING TO RAISE THE SEPARATE ISSUES IT PRESENTS IN NO. 13-1287

EPA agrees that one or more of the California Petitioners in Case No. 13-1283 has demonstrated standing to assert the issues raised in that petition. Thus, this Court has jurisdiction to review the merits in that case. However, EPA disputes the suggestion (Pet'r Br. at 17) that California Petitioners' standing in Case No. 13-1283 obviates the need to review the adequacy of ARTBA's standing for its own petition, Case No. 13-1287, and the "related or subsidiary questions" it alone raises. *See* Pet'r Br. at 2. It is true that where Article III standing exists for one petitioner, a court need not examine the standing of others, *as long as* "all petitioners raise the same issues," *Grocery Mfrs. Ass'n v. EPA*, 693 F.3d 169, 175 (D.C. Cir. 2012), and any one individual party's standing "makes no difference to the merits of the case." *LaRoque v. Holder*, 650 F.3d 777, 792 (D.C. Cir. 2011). Yet while this maxim may apply to the issues ARTBA and California Petitioners raise on behalf of their common, California-based members, *see* Aff. Of Lawrence J. Joseph ("Joseph Aff."), at ¶ 6, it does not apply to the several distinct issues ARTBA raises alone relating to the EPA Decision's implications for other States. *See* Pet'r Br. at 2-3.

ARTBA represents "the collective interests of the U.S. transportation construction industry," Joseph Aff., at ¶ 4, and claims associational standing based on alleged injuries to its members rather than on an injury to itself. Pet'r Br. at 17 n.5.

Accordingly, ARTBA was required to demonstrate that: (1) at least one identified member would have standing to sue in its own right; (2) the interests ARTBA seeks to protect are germane to the organization's purpose; and (3) neither the claim asserted nor the relief requested requires the participation of individual members. *Amer. Library Ass'n v. FCC*, 401 F.3d 489, 492 (D.C. Cir. 2005). Moreover, as with any party, to show Article III standing ARTBA was required to demonstrate that its members "suffered an injury-in-fact . . . which is (a) concrete and particularized and (b) actual or imminent rather than conjectural or hypothetical." *Id.* ARTBA was also required to show a causal connection between that claimed injury and the challenged action, and that it is "likely, as opposed to merely speculative, that the injury will be redressed by a favorable decision." *American Chemistry Council v. Dep't of Transp.*, 468 F.3d 810, 815 (D.C. Cir. 2006).

With regard to the separate issues it presents, ARTBA has not demonstrated that it has met this test. Specifically, ARTBA fails to identify a single *non*-California based member it asserts has been (or imminently will be) injured. *See Summers v. Earth Island Inst.*, 555 U.S. 488, 494-95 (2009) (to have standing organization must identify specific member with a specific concrete injury).

It is axiomatic that Article III standing is a prerequisite to federal jurisdiction, and that petitioners bear the burden of establishing their standing. *Amer. Library Ass'n*, 401 F.3d at 493. Even as EPA agrees that this Court may consider the numerous challenges to EPA's Off-Road Diesel Decision that ARTBA and

California Petitioners raise together, ARTBA has not demonstrated that it has standing to present the non-California “related or subsidiary questions” it alone has raised.⁷ Accordingly, the Court should dismiss ARTBA’s petition as to the non-California “related or subsidiary questions” that ARTBA alone raises.

II. PETITIONERS’ CHALLENGE TO EPA’S OFF-ROAD DIESEL DECISION IS PROPERLY FILED IN THIS COURT.

A. California Petitioners’ and ARTBA’s Common Challenges to the “National-Applicability” and “Nationwide Scope and Effect” of EPA’s Decision Are Invalid.

This Court has found that 42 U.S.C. § 7607(b) is a venue provision, *Tex. Mun. Power Agency v. EPA*, 89 F.3d at 867, and petitioners devote an extraordinary proportion of their brief – over half their “Argument,” in fact – to challenging this Court’s venue over their case. *See* Pet’r Br. at 18-42. Petitioners jointly raise several common objections on this front. These objections focus on petitioners’ theories that EPA’s Decision was neither a “nationally applicable” final action, reviewable via the first sentence of 42 U.S.C. § 7607(b), Pet’r Br. at 26-28, nor a regional action of nationwide scope and effect reviewable under 42 U.S.C. § 7607(b)’s third sentence, Pet’r Br. at 23-24. Petitioners also cite to practical reasons (*e.g.*, geographic territory covered by CARB’s Fleet Requirements; location of California Petitioners; familiarity

⁷ Separate and apart from the adequacy of its standing to bring non-California challenges, ARTBA also waived its opportunity to challenge this Court’s venue in this case by failing to file its own petition for review in the Ninth Circuit, as shown *infra* at 39-40.

of Ninth Circuit judges with “local conditions and issues”) why they believe the nexus of the parties and subject matter to the Ninth Circuit make that court a preferred venue. Pet’r Br. at 30. Petitioners are wrong on all counts.

1. EPA’s Off-Road Diesel Decision Is a Nationally-Applicable Final Action Because Other States May Automatically Adopt California’s Nonroad Engine Standards Without Further EPA Review, Under 42 U.S.C. § 7543(e).

First, the plain language of 42 U.S.C. § 7543(e) – in particular, the authority it gives to States other than California to adopt identical nonroad diesel standards once CARB’s Fleet Requirements are approved – suffices to demonstrate the “national applicability” of EPA’s Decision, without more.⁸

While subsection 7543(e)(2)(A) gives California a primary role in regulating emissions from nonroad engines, subsection 7543(e)(2)(B) gives the other 49 States the concomitant right to “follow California’s lead and adopt a rule identical to California’s” if they choose to do so. *ATA*, 600 F.3d at 626. In relevant part, under that subsection “[a]ny State other than California . . . may adopt and enforce, after notice to the Administrator [of EPA], for any period, standards . . . if . . . such

⁸ Although EPA found and determined that granting California authorization was an action of national applicability, 78 Fed. Reg. at 58,121, this formal step was not required for this Court to have exclusive jurisdiction. Under the CAA, EPA must make a finding and determination only where the applicability of the decision is local or regional but is based on an underlying determination that is nationwide in scope. 42 U.S.C. § 7607(b). Thus, even if the Court rejects the national applicability of EPA’s action, EPA’s finding and determination satisfied this alternative basis for D.C. Circuit venue, as shown *infra* at 31-33; 34-37.

standards . . . are identical, for the period concerned, to the California standards authorized by [EPA].” 42 U.S.C. § 7543(e)(2)(B). No further EPA authorization is required or allowed before such States adopt California’s standards, once they are approved by EPA. 59 Fed. Reg. at 36,983; 40 C.F.R. § 1074.110.

In this case, of course, this “plain language” reading of section 7543 makes perfect sense in light of what is at issue, *i.e.*, EPA’s authorization of the Nation’s first and *only* set of emission standards for in-use, nonroad diesel vehicles. EPA’s approval of those standards is an action with nationwide implications. EPA’s Decision is one that, if upheld, may govern statewide off-road diesel fleet requirements for many other States and, thus, it is a nationally-applicable action that this Court is singularly empowered to review.

2. This Court Has Consistently Treated EPA Decisions to Authorize California’s Nonroad Vehicle Emission Regulations as Nationally Significant Final Actions.

While this Court must satisfy itself of its own authority to hear these petitions for review, it is instructive to note that the Court has consistently treated similar petitions for review as nationally significant actions reviewable in this Court.⁹ Specifically, as petitioners note, this Court reviewed EPA approvals of CARB emission rules for new motor vehicles in both *MEMA I*, 627 F.2d at 1095, and *Motor*

⁹ EPA agrees with petitioners (*see* Pet’r Br. at 34-35) that this Court has not previously addressed whether it has exclusive jurisdiction over EPA waivers from federal preemption for mobile sources under the CAA. Heretofore, that jurisdiction (footnote continued . . .)

Equip. Mfrs. Ass'n v. Nichols, 142 F.3d 449 (D.C. Cir. 1998). Pet'r Br. at 28-29.

EPA's approval in these cases came under subsection 7543(b), rather than subsection 7543(e), but for current purposes they had the same effect: CARB's emission rules for new motor vehicle rules were directly applicable only to vehicles operating in the State, but once approved by EPA they could be adopted nationwide. *See* 42 U.S.C. § 7507(1) (authorizing any State to adopt new motor vehicle emissions standards "identical to the California standards for which a waiver has been granted").

While petitioners cite to both *MEMA I* and *Nichols*, they make no effort to distinguish or analyze these cases with regard to the venue question. One reason may be that both cases' reasoning underscores the national significance of EPA's action here. In *MEMA I*, the Court reviewed EPA's decision to waive federal preemption for California regulations limiting the amount of maintenance required by operators' manuals placed in new motor vehicles sold in California. 627 F.2d at 1101. *MEMA I* is suffused with this Court's recognition of California's historical "pioneering efforts" in vehicle emissions technology, and Congress' expectation that California would remain at the cutting edge of national vehicle emission standards innovation. "[T]he advantages of the California exception included the benefits for the Nation to be derived from permitting California to continue its experiments in the field of emissions control benefits[.]" *Id.* at 1109-10. *See also id.* at 1109 (Congress

has simply not been in doubt.

“expressed its intent to occupy the regulatory role over emissions control to the exclusion of all the states all, that is, except California”). It strains credulity to presume that in enacting 42 U.S.C. § 7543, Congress carved out a special role for California to develop pioneering mobile emission standards available for adoption throughout the Nation, on one hand, yet required that EPA’s decisions authorizing such standards be treated as “regionally applicable” actions, reviewed by the Ninth Circuit (and not this Court), on the other.¹⁰

Similarly, in *Motor & Equipment Manufacturers v. Nichols* -- which addressed EPA’s approval of CARB’s regulation of on-board vehicle emissions diagnostic devices (“OBDs”) -- this Court recognized that “[t]he effect of the [CAA] is that new ‘motor vehicles must be either ‘federal cars’ designed to meet EPA’s standards or ‘California cars’ designed to meet California’s standards.” 142 F.3d at 453. The California OBD regulations in *Nichols* were reviewed against the backdrop of longstanding federal OBD regulations issued by EPA. *Id.* at 453-54 (citing regulations promulgated at 58 Fed. Reg. 9468 (Feb. 19, 1993)). In *this* case, by contrast, there *are no* federal standards for in-use, nonroad diesel engines, *see* 42 U.S.C. § 7547(a)(2), (3), and the *only* NO_x and PM standards available to States seeking to regulate in-use fleets are those represented by CARB’s Fleet Requirements.

¹⁰ It further strains credulity to presume in enacting section 7543, Congress intended for this Court to review *some* CARB authorization approvals by EPA, but not others. The potential for confusion resulting from conflicting reviews by two (footnote continued . . .)

“A state may decline to follow California’s lead; if so, however, the state may not regulate emissions from in-use non-road engines at all.” *ATA*, 600 F.3d at 628.

Particularly given the absence of a corresponding federal standard, the fact that California’s nonroad standards may serve as the template for corresponding standards adopted by other States underscores the national significance of EPA’s action.

This Court previously reviewed an EPA decision authorizing CARB rules under section 7543(e) in *ATA*, 600 F.3d 624; there, the Court affirmed EPA’s decision to authorize a CARB rule regulating emissions from transportation refrigeration units (“TRUs”) in trucks. While the appropriateness of D.C. Circuit review was not questioned in *ATA*, the Court noted that California’s TRU rule – much like CARB’s Fleet Requirements here -- required compliance from “all TRUs carried on vehicles *operating* in California – not just those carried on vehicles *based* in California[.]” *Id.* at 626 (emphasis in original). The factors militating towards D.C. Circuit review in *ATA* are equally present here.

different appellate courts is self-evident.

3. EPA's Off-Road Diesel Decision Is a Nationally-Applicable Action Because California's Fleet Requirements Will Regulate Qualifying Diesel Fleets Both Within and Outside the State.

EPA's Decision is also properly characterized as a nationally-applicable action because CARB's Fleet Requirements will regulate off-road diesel fleets based *both* in California and out of State.

This Court has held that whether an action is “nationally applicable” or “locally or regionally applicable” turns on who is regulated by the action, not by the *de facto* impacts of the regulation. *Natural Res. Def. Council, Inc. v. Thomas*, 838 F.2d 1224, 1249 (D.C. Cir. 1988) (“If the jurisdictional provision turns on the *de facto* scope of the regulation, choice of the correct forum might raise complex factual and line-drawing problems [that] waste time and serve little purpose.”). Other appellate courts similarly agree that under the CAA, the “national applicability” of an EPA action turns on its practical reach, not merely where its effects are felt. *See New York v. EPA*, 133 F.3d 987, 990 (7th Cir. 1998) (whether an EPA action is national, or regional or local, “should depend on the location of the persons or enterprises that the action regulates rather than on where the effects of the action are felt.”); *Texas v. EPA*, No. 10-60961, 2011 WL 710598, at *3 (5th Cir. Feb. 24, 2011); *ATK Launch Sys., Inc. v. EPA*, 651 F.3d 1194, 1197 (10th Cir. 2011).

The plain language of the Fleet Requirements and the administrative record supporting EPA's Decision underscore the nationwide effect of EPA's action. "[A]ll [qualifying] off-road vehicles and engines [fleets] . . . operated within California" are subject to California's Fleet Requirements, regardless of where such fleets are based. JA 503 (Decision docket 0691-0292, at 6) (promulgating Cal. Admin. Code tit. 13, § 2449(c)(20)). Given the classes of fleets most likely affected by the rule – *e.g.*, construction, manufacturing, and landscaping vehicles, *see* JA 788 (Decision docket 0691-0002, attachment A at 1) -- the majority of affected fleets may, in fact, be based either in California or in neighboring States. But "[a]n EPA rule need not span 'from sea to shining sea' to be nationally applicable." *W. Va. Chamber of Commerce v. Browner*, No. 98-1013, 1998 WL 827315, at *7 (4th Cir. Dec. 1, 1998). CARB's regulation "applies equally to all equipment that is operated in the state, regardless of where the fleet itself is located." JA 698-99 (Decision docket 0691-0298, at 122-23). This is the *sine qua non* of a nationally-applicable action, properly reviewable only in the D.C. Circuit. 78 Fed. Reg. at 58,121.¹¹

¹¹ Petitioners assert that both *New York v. EPA* and *ATA* undermine the nationally applicable character of the CARB's Fleet Requirements, *See* Pet'r Br. at 35-37, but in fact they misread both cases. In *New York*, the Seventh Circuit reviewed a NOx emissions limitation exemption that, by its terms, was limited to a cluster of Great Lakes States; the only effects from EPA's action felt beyond these States were air quality effects, something common to "any major [CAA] action by the EPA . . . since air currents do not respect state boundaries." *New York v. EPA*, 133 F.3d at 990. By contrast, the Fleet Requirements apply to any qualifying vehicles operating within California, regardless of where such vehicles are registered or owned. (footnote continued . . .)

4. EPA's Action is Reviewable Only in the D.C. Circuit Because EPA Determined Its Action Had Nationwide Scope or Effect, A Determination That Is Not a Proper Subject for Judicial Review.

Review of EPA's Off-Road Diesel Decision in the D.C. Circuit is also compelled by EPA's published determination that its action would have a nationwide scope or effect. EPA's Decision contained the express finding that the Decision would indirectly "affect not only persons in California, but also entities outside the [S]tate who must comply" with CARB's Fleet Requirements. 78 Fed. Reg. at 58,121. While EPA used the words "national applicability" as opposed to the words "nationwide scope or effect" in describing its action, the slight difference in nomenclature is immaterial. An action that has "national applicability," *per se*, has "nationwide scope or effect." Courts "prefer[] . . . commonsense inquiries over formalism," *United States v. Williams*, 514 U.S. 527, 536 (1995), and favor according statutes their "sensible construction" where possible. *United States v. Granderson*, 511 U.S. 39, 42 (1994). In short, the "nationwide scope or effect" prong in the third

Decision docket 0691-0292, at 6 (promulgating Cal. Admin. Code tit. 13, § 2449(c)(20)). As for *ATA*, petitioners fail to acknowledge that the national applicability of EPA's action there (approving CARB's regulation of TRUs powered by diesel engines) was not challenged. This Court rejected ATA's "weak" argument that CARB's rule violated section 7543(e)'s criteria for approval of a waiver, merely because it applied to out-of-state trucks driving within California's borders. *ATA*, 600 F.3d at 627-28 (citing 42 U.S.C. § 7543(e)(2)(A)(iii)). It did *not* reject the use of this criterion as a basis for classifying EPA's action as "nationally applicable."

sentence of 42 U.S.C. § 7607(b)(1) was satisfied by EPA’s “determin[ation] and “find[ing]” as to the effect of its Decision outside California.

Petitioners suggest that the validity of an EPA “nationwide scope or effect” determination depends on whether a challenged action is demonstrably and “objectively [shown to be] one of nationwide scope or effect.” *See* Pet’r Br. at 24. They maintain that this reading of section 7607(b) is necessary to prevent EPA from using section 7607(b)’s third sentence (“nationwide scope or effect”) to subvert and negate its first (“nationally applicable”). *Id.* This reading of the CAA fundamentally misconstrues the nature of “nationwide scope or effect” findings under the CAA.

By centralizing judicial review of “nationally applicable” actions in the D.C. Circuit, Congress recognized the importance of creating uniform interpretations and applications of nationally-applicable agency actions, especially in the context of technically complex statutes like the CAA. Similarly, and perhaps in recognition that the distinction between categories of actions reviewable under section 7607(b)(1) may be “elusive,”¹² Congress also authorized this Court to review regionally applicable

¹² *Tex. Mun. Power Agency v. EPA*, 89 F.3d at 867 & n.6; *cf. W. Va. Chamber of Commerce v. Browner*, 1998 WL 827315, at *6 (some cases involve clearly nationally applicable or regionally/locally applicable actions, while others fall “in between these two sets of clear cases”); *Sierra Club v. Johnson*, 623 F. Supp. 2d 31, 36 (D.D.C. 2009) (courts “have not set forth a unitary standard” to distinguish nationally and regionally applicable actions).

final actions determined by EPA to have nationwide scope and effect, and Congress intended that EPA's determinations in such cases would be conclusive.¹³

Few cases have involved a review of EPA determinations of “nationwide scope or effect” under 42 U.S.C. § 7607(b). However, these cases support the conclusion that EPA's finding of nationwide scope and effect is conclusive as to the D.C. Circuit's jurisdiction and is not itself subject to judicial review. In *Alcoa, Inc. v. EPA*, No. 04-1189, 2004 WL 2713116, at *1 (D.C. Cir. Nov. 24, 2004) (per curiam), for example, this Court held that it had exclusive jurisdiction over Alcoa's challenge to the ozone designations rule because the EPA Administrator had “unambiguously determined that the [ozone designations rule] has nationwide scope and effect.” *Accord Puerto Rican Cement Co. v. EPA*, 889 F.2d 292, 300 (1st Cir. 1989). Here, as in *Alcoa*, EPA made an explicit finding as to the nationwide impact of its Decision.

Similarly, in *Sierra Club v. Leavitt*, 368 F.3d 1300 (11th Cir. 2004), the Eleventh Circuit observed in dicta that it is for EPA, “not th[e] Court, to judge whether EPA has made a determination of nationwide scope.” *Id.* at 1308 n.12. While *Sierra Club* did not directly address the question of judicial review under section 7607(b)(1), the court's observation further supports EPA's view that where it makes a “nationwide

¹³ By contrast, courts have appropriately examined the putative “national applicability” of challenged EPA actions, for which D.C. Circuit venue does not depend upon a threshold “finding” or “determination” by EPA. *See, e.g., ATK Launch*, 651 F.3d at 1194; *W. Va. Chamber of Commerce v. Browner*, 1998 WL 827315, at *6-7; *Madison Gas & Elec. Co. v. EPA*, 4 F.3d 529 (7th Cir. 1993).

scope” finding, that is conclusive and any “appeals of EPA’s action should be filed in the D.C. Circuit rather than [the] regional Circuit.” *See id.*¹⁴

Indeed, this Court should hold that EPA’s finding that an agency action is of nationwide scope or effect is among the “rare circumstances” where agency action is unreviewable under the APA, 5 U.S.C. § 701(a)(2); *Lincoln v. Vigil*, 508 U.S. 182, 190-91 (1993); *Heckler v. Chaney*, 470 U.S. 821, 830-32 (1985). As the agency responsible for administering the CAA, EPA is “far better equipped” than this Court to determine which of its actions are of nationwide scope and effect. *See Lincoln*, 508 U.S. at 193.

Finally, even if this Court concludes that an EPA finding of nationwide scope and effect is reviewable, EPA’s interpretation of the statute is entitled to significant deference and must be upheld as long as it is reasonable. *Chevron*, 467 U.S. at 842-44. The finding and determination in EPA’s Decision was based on its consistent interpretation of section 7543(e)(2)(B), and represented an analytical approach EPA has applied consistently for decades. Because the CAA provides that when EPA makes a nationwide scope and effect finding review is limited to the D.C. Circuit --

¹⁴ The legislative history of section 7607(b) lends further support to this view. *See* H.R. Rep. No. 95-294, at 324 (1977), *reprinted in* 1977 U.S.C.C.A.N. 1077, 1403 (“if any action of the Administrator is found by him to be based on a determination of nationwide scope or effect . . . then exclusive venue for review is in the U.S. Court of Appeals for the District of Columbia”).

and because EPA made such a finding here -- Petitioners' challenges may only be heard in this Court.

5. Venue Should Not Be Based on the “Nexus” Factors Identified by Petitioners.

Petitioners also offer up five separate “nexus-based” reasons why they believe this case should be transferred to the Ninth Circuit. Pet'r Br. at 30. These arguments are tied not to the national applicability, or scope or effect, of EPA's action, but rather to the convenience or preferences of the petitioners, the “geographic territory covered” by EPA's action, and the familiarity petitioners presume individual judges in the Ninth Circuit will have with the “local conditions and issues” of California. Because these arguments are not tied to the statutory criteria, they ring hollow.

Moreover, even assuming *arguendo* that the Court's venue were still in doubt, this Circuit's longtime familiarity with EPA waiver decisions is *also* a relevant factor to determine where venue should lie. *See Eastern Air Lines, Inc. v. CAB*, 354 F.2d 507, 510 (D.C. Cir. 1965) (“one factor that has considerable weight in the guidance of judicial discretion is the desirability of transfer to a circuit whose judges are familiar with the background of the controversy through review of the same or related proceedings”). Regardless of whether petitioners believe it was wrong to do so, there is no dispute that all previous challenges to EPA's waiver decisions under section 7543 – both for new motor vehicles and nonroad vehicles and engines – have been reviewed in the D.C. Circuit. If any Court is qualified to evaluate the merits of EPA's

Decision (and gauge the distinctions *vel non* between EPA's previous actions and this one for venue purposes), it is this Court.

B. ARTBA's Separate Challenges to This Court's Venue Are Invalid.

ARTBA separately raises several distinct issues it calls "related or subsidiary" to the venue issues raised with California Petitioners. Pet'r Br. at 2-3. None of ARTBA's separate challenges has merit.¹⁵

1. ARTBA Waived Its Opportunity To Challenge This Court's Venue By Filing Its Petition For Review Only In This Court.

As a threshold matter, this Court should reject the separate venue arguments ARTBA presents (issues 2 and 3 in its "related or subsidiary questions") because of its failure to file a petition for review in its preferred forum, the Ninth Circuit.¹⁶

As noted above, both California Petitioners and ARTBA filed timely challenges to EPA's Decision in this Court, but only California Petitioners filed a corresponding petition for review in the Ninth Circuit. ARTBA did not file a Ninth Circuit petition, but instead sought and was granted leave to intervene on California Petitioners' behalf. *See generally supra* at 17-18.

¹⁵ ARTBA's first issue, concerning the reviewability of EPA's findings under 42 U.S.C. § 7607, closely relates to California Petitioners' own venue challenges and has been addressed with them, *supra* at 34-37.

¹⁶ EPA acknowledges that California Petitioners filed petitions in both courts as a protective measure, and does not assert waiver as to them.

ARTBA's decision to file only in this Court undermines its challenge to this Court's venue now. Choice of venue is a personal privilege accorded to a party respecting the "place of suit, which he may assert, or may waive at his election." *Neirbo Co. v. Bethlehem Shipbuilding Corp.*, 308 U.S. 165, 168 (1939). "Being a privilege, it may be lost. It may be lost by failure to assert it seasonably, by formal submission in a cause, or by submission through conduct." *Id.* A party can relinquish its right to object to venue, if it brings suit in a court other than the one authorized by statute. *See, e.g., Olberding v. Illinois Cent. R. Co.*, 346 U.S. 338, 340 (1953); *Adam v. Saenger*, 303 U.S. 59, 67-68 (1938).

Unlike California Petitioners, ARTBA chose this venue alone for its suit. That decision carries consequences. ARTBA did not have to file here at all: under 28 U.S.C. § 1631, the Ninth Circuit was fully authorized to transfer any petition timely filed there to this Court, if warranted. That provision, enacted as part of the Federal Courts Improvement Act of 1982 ("FCIA"), authorizes the transfer of an action from a court without jurisdiction to "any other such court in which the action or appeal could have been brought at the time it was filed," in the interests of justice. 28 U.S.C. § 1631. This Court has held that the authority to transfer applies with full force in the venue context, as well. *See Alexander v. CIR*, 825 F.2d 499, 501 (D.C. Cir. 1987) ("it would be inconsistent with the general purpose of the FCIA and the specific purpose of section 1631 to infer an intent to revoke our inherent power to transfer cases over which we have jurisdiction, but not venue.").

Thus, ARTBA only needed to file a timely petition for review in the Ninth Circuit to ensure that its challenge to EPA's Decision would be heard in the appropriate venue once the dust settled on any dispute over the national applicability of the action. ARTBA's decision to file only here amounts to a "submission through conduct" to this Court's venue, *Neirbo Co. v. Bethlehem Shipbuilding Corp.*, 308 U.S. at 168, and a waiver of ARTBA's venue challenges.

2. Other States May Lawfully Adopt and Implement the California Standards Under 42 U.S.C. § 7543(e)(2)(B).

ARTBA also challenges this Court's venue over these petitions by contesting EPA's interpretation of section 7543's "opt-in" provision applicable to "[a]ny State other than California." 42 U.S.C. § 7543(e)(2)(B). ARTBA specifically asserts that it is impossible for other States to adopt CARB's standards, because the yearly declines in fleet-based emissions required by that rule cannot be lawfully implemented in accordance with subsections 7543(e)(2)(B)(i) and (ii). Pet'r Br. at 37-41. Because it construes CARB's standards to be "legally ineligible" for adoption elsewhere, ARTBA concludes that EPA's Decision is, *per se*, a "regionally-applicable" action. *Id.* at 41. ARTBA is wrong.

First, the very complexity of this purported "venue" argument – one which would lure the Court to address an ancillary legal dispute over other States' hypothetical future actions -- underscores the national implications of EPA's Decision. Whether other States may lawfully adopt CARB's Fleet Requirements –

whether EPA's reading of the plain language of 42 U.S.C. § 7543(e)(2)(B) is correct -- is a question with national (not merely "regional") ramifications. If and when other States attempt to adopt CARB's Fleet Requirements, the "venue" issue ARTBA presents regarding the meaning of section 7543(e)(2)(B) may be joined. Meanwhile, ARTBA's untested reading of section 7543(e)(2)(B) provides no basis to reject this Court's venue or second-guess EPA's determination that its Decision is one having nationwide scope or effect.

Moreover, even on its own terms, ARTBA's interpretation of section 7543(e)(2)(B) is wrong. ARTBA misreads the CAA -- which requires only that States wait "at least 2 years" before their own version of CARBs' standards take effect, *see* 42 U.S.C. § 7543(e)(2)(B)(ii). ARTBA also ignores the fact that section 209(e)(2)(B) allows States to adopt and enforce CARB standards, "*for any period*" provided the standards are identical for the period concerned. *Id.* § 7543(e)(2)(B) (emphasis added). Nothing in the CAA requires States to adopt and enforce CARB's emission standards at the same time (or for the same length of time) as California, as ARTBA implies.

On several occasions States outside California have adopted and enforced CARB motor vehicle emission standards well after the initiation of CARB's own requirements, in accordance with 42 U.S.C. § 7507 (after which section 7543(e)(2)(B) is modeled). One such example is States' implementation of CARB regulations associated with Low-Emission Vehicles ("LEV") between 1992 and 2005, long after

CARB's own LEV regulations were adopted in 1990. *See, e.g.*, N.Y. Comp. Codes R. & Regs. tit. 6, Chapter III, Subchapter A, pt. 218 (New York LEV program, adopted 1992); Mass. Regs Code tit. 310 §§ 7.40, 7.45 (Massachusetts LEV program, adopted 1992); 06-096 Code Me. R. Ch. 127, § 2 & Att. A (Maine LEV program, adopted 1993); Vt. Code R. 16-3-100:5-1101 through 1107 (Vermont LEV program, adopted 1996). *See also Motor Vehicle Mfrs. Ass'n v. N.Y. Dep't of Env'tl. Conservation*, 79 F.3d 1298, 1302 (2d Cir. 1996) (discusses adoption of New York LEV program); *Motor Vehicle Mfrs. Ass'n v. N.Y. Dep't of Env'tl. Conservation*, 17 F.3d 521, 527-28 (2d Cir. 1994) (same); *Amer. Auto. Mfrs. Ass'n v. Comm'r Mass. Dep't of Env'tl. Prot.*, 31 F.3d 18, 21-22 (1st Cir. 1994) (discusses adoption of Massachusetts LEV program).

The practical concerns raised by ARTBA (*see* Pet'r Br. at 38-41) similarly lack merit. When a CARB standard includes a declining annual-average, States adopting the standard simply begin enforcement in accordance with the applicable average set by CARB for that year. CARB's LEV standards, for example, contain fleet average standards for non-methane organic compounds that become incrementally more stringent for several years. *See* Cal. Admin. Code tit. 13 § 1960.1. LEV regulations in other States mirror CARB's in this as in other respects. *See supra*. Under the lead time requirements of section 7543(e)(2)(B), another State could adopt CARB's Fleet Requirements in 2016, *e.g.*, and, after providing the lead time required by the statute, require compliance beginning in 2019, using CARB's 2019 requirements. *See N.Y. Dep't of Env'tl. Conservation*, 17 F.3d at 524-25.

Contrary to ARTBA's claims, there is nothing "cavalier[]" about EPA's use of the LEV standards precedent to illustrate how States' adoption of CARB's Fleet Requirements may work in practice. Pet'r Br. at 39. The "compliance task" challenge illustrated in ARTBA's charts (Pet'r Br. at 40) is likely to be inherent in *any* emissions program outside of California that targets in-use (*i.e.*, non-new) nonroad fleets. Yet these challenges do nothing to undermine the legal validity of CARB's own Fleet Requirements, or the validity of identical standards in any other State that, after waiting "at least 2 years," elects to adopt CARB's standards "for any period" thereafter. The truth is that ARTBA's real grievance lies not with EPA and its authorization of these specific CARB Fleet Requirements, but rather with Congress and its decision to enact 42 U.S.C. §§ 7543(e)(2) and 7543(e)(2)(B) -- authorizing other States to adopt CARB non-new off-road engine and vehicle standards -- at all. In *ATA*, this Court rejected a similar argument, noting that, "ATA's argument is best directed to Congress because the problem it identifies is inherent in the congressional decision to give California the primary role in regulating certain mobile pollution sources." *ATA*, 600 F.3d at 628. A similar verdict is warranted here.

It is ironic, at best, that ARTBA would have this Court find EPA's action to be "regionally-applicable," by resolving a substantive disagreement that is plainly nationwide. Whether other States may adopt CARB's Fleet Requirement is a question with national implications and thus, per force, is one that reinforces the appropriateness of venue in this Court.

3. This Court Should Reject ARTBA's Request to Sever its Challenge Regarding 42 U.S.C. § 7543(e)(2)(B) from the Rest of the Case.

ARTBA's final venue argument relates to its concern that this Court may choose to rule narrowly on the validity of EPA's Decision and, thus, ignore ARTBA's arguments regarding other States' (in)ability to adopt CARB's Requirements under section 7543(e)(2)(B). Pet'r Br. at 41. To address this perceived problem, ARTBA asks this Court (if it declines to transfer the petitions to the Ninth Circuit) to sever ARTBA's "opt-in" challenge from California Petitioners' merits challenge, and transfer ARTBA's petition to the U.S. district court for the District of Columbia, under 28 U.S.C. § 1631. Pet'r Br. at 42. This suggestion warrants only a brief response.

There is no need to sever ARTBA's petition from the rest of this case; ARTBA or its members will have their day in court to challenge any future adoption of CARB's rules by other States, if such a matter becomes ripe. The cases challenging other States' adoption of CARB's LEV regulations, cited above, were all heard in federal district court after CARB's own standards were adopted. The "identity" of these States' standards with those in California and/or the States' adherence to the "2 year lead time" requirement was an issue in each one. *See Motor Vehicle Mfrs. Ass'n v. N.Y. Dep't of Envtl. Conservation*, 79 F.3d at 1305; and *Motor Vehicle Mfrs. Ass'n v. N.Y. Dep't of Envtl. Conservation*, 17 F.3d at 531-32; *Amer. Auto.*

Mfrs. Ass'n v. Comm'r Mass. Dep't of Env'tl. Prot., 31 F.3d at 23. “[T]he ultimate legal determination of whether [a State’s standards implementing CARB regulations] are preempted by the CAA is a question of federal preemption law for the courts alone to decide.” *See Assoc. Intern. Auto. Mfrs., Inc. v. Comm'r Mass. Dep't of Env'tl. Prot.*, 208 F.3d 1, 5 (1st Cir. 2000).

ARTBA claims it is not seeking to challenge EPA’s preemption rules relating to States’ adoption of CARB nonroad standards generally; it is *only* challenging such States’ ability to “opt into *these* California standards.” Pet’r Br. at 41 (emphasis added). Yet absent a concrete dispute over a specific state standard’s adherence to federal law, ARTBA’s claim is unripe and, in fact, is nothing more than a request for an advisory opinion which the court lacks authority to decide. *El Paso Natural Gas Co. v. United States*, 750 F.3d 863, 883 (D.C. Cir. 2014); *Full Value Advisors, LLC v. SEC*, 633 F.3d 1101, 1106 (D.C. Cir. 2011). The legal question posed by ARTBA *may* be available for judicial review at some future point, but it is not available for review now. Thus, ARTBA’s suggestion that it needs its “opt-in” challenge severed from the rest of this case in order to litigate its “opt-in” challenge is simply wrong.¹⁷

¹⁷ ARTBA specifically notes that it wishes to “litigate this issue *against* EPA,” Pet’r Br. at 42 (emphasis added), but offers no explanation about why EPA’s presence as a party is needed to make its case. Similarly, ARTBA requests that its “opt-in” challenge be transferred to the district court in Washington, D.C., but (other than the fact that the D.C. Circuit reviews that court’s rulings) it offers no explanation of why that court would be the appropriate forum for its challenge. *Id.*

III. EPA REASONABLY ASSESSED WHETHER CALIFORNIA NEEDS ITS PROGRAM TO MEET COMPELLING AND EXTRAORDINARY CONDITIONS BY CONSIDERING THE PROGRAM AS A WHOLE

CAA section 209(e)(2)(A)(ii), 42 U.S.C. § 7543(e)(2)(A)(ii), states that EPA may not grant California a waiver of preemption if EPA finds that California “does not need such California standards to meet compelling and extraordinary conditions.” In deciding to approve CARB’s Fleet Requirements, EPA considered whether California needed its mobile source emission standards program as a whole, a practice that has been followed – with a single exception¹⁸ -- for over 40 years. 78 Fed. Reg. at 58,094, 58,102. EPA’s interpretation is consistent with the statutory language, congressional intent as demonstrated by the legislative history, and prior decisions by this Court.

¹⁸ In 2005, California submitted a CAA waiver request to EPA in accordance with section 7543(b)(1), to regulate emissions of greenhouse gases from new motor vehicles. EPA originally denied California’s request in a *Federal Register* notice dated March 6, 2008. 73 Fed. Reg. 12,156 (Mar. 6, 2008). In reaching that decision, EPA’s then-Administrator departed from EPA’s historic practice of examining whether California needed its own motor vehicle program as a whole and, instead, considered whether California needed its greenhouse gas regulations considered by themselves. *Id.* at 12,159-61. At that time, EPA’s Administrator determined that California did not need its standards to meet compelling and extraordinary conditions, as required by section 7543(b)(1)(B). *Id.* at 12,159. EPA subsequently determined that its initial denial of California’s waiver request was “based on an inappropriate interpretation of the waiver provision” and approved that request on July 8, 2009. 74 Fed. Reg. 32,744, 32,746 (July 8, 2009).

Nothing in 42 U.S.C. § 7543(e)(2) requires EPA to consider whether California has a need for any *particular* aspect of its mobile source standards program, rather than assessing whether California has a need for its nonroad program *as a whole*. The statute provides in relevant part:

The Administrator shall, after notice and opportunity for public hearing, authorize California to adopt and enforce standards and other requirements relating to the control of emissions from [nonroad] vehicles or engines if California determines that California *standards will be, in the aggregate*, at least as protective of public health and welfare as applicable Federal standards. No such authorization shall be granted if the Administrator finds that . . . (ii) California does not need *such California standards* to meet compelling and extraordinary conditions

42 U.S.C. § 7543(e)(2)(A)(ii) (emphasis added). The most natural reading of the statutory language is that the italicized phrase “such California standards” in section 7543(e)(2)(A)(ii) refers back to the italicized word “standards” in the initial text of section 7543(e)(2)(A) – that is, the “California standards” which that State has determined will be, “in the aggregate,” as protective as federal standards. In other words, the phrase “such California standards” refers to California’s nonroad program as a whole. At a minimum, EPA’s interpretation is reasonable in light of the purpose of the statute and its legislative history; accordingly, it must be upheld. *See Chevron*, 467 U.S. at 843.

As noted above, Congress enacted section 7543(e)’s precursor, section 7543(b), in recognition of both California’s unique air pollution problems and its cutting-edge role in the development of techniques for automobile air pollution

controls. The report of the Senate committee that created section 7543(b) noted that, “Senator Murphy convinced the committee that California’s unique problems *and pioneering efforts* justified a waiver of the preemption section to the State of California.” S. Rep. No. 90-403 at 33 (1967) (emphasis added). Congress enacted section 7543(b) to enable California to continue to improve on “its already excellent *program*” of emission control, *id.* (emphasis added), and the law’s legislative history contains nothing to suggest “that the waiver provision was designed to permit California to adopt only a portion of such a program. *Id.* (cited in *MEMA I*, 627 F.2d at 1109-10).

EPA’s practice of reviewing California’s nonroad program as a whole is consistent with Congress’ intent that the State be allowed to continue its role to experiment with new methods for emissions control. EPA’s Decision approving CARB’s Fleet Requirements is a good example of the benefits of this approach. No other jurisdiction, Federal or State, has developed and implemented standards for the control of emissions from in-use diesel fleets to date. California’s innovative efforts may ultimately facilitate the authorization and development of national standards to address the same problem.

A. Petitioners’ Interpretation of 42 U.S.C. § 7543(e)(2)(A)’s Plain Language and Legislative History Is Flawed.

Petitioners purport to draw different conclusions from the plain language and legislative history of section 7543. Regarding the former, they argue, *inter alia*, that a

“standard is a standard,” not a “program” – a term “not used even once” in the section, *see* Pet’r Br. at 44 (citing *Engine Mfrs. Ass’n v. S. Coast Air Quality Mgmt. Dist.*, 541 U.S. 246, 254 (2004), 52 – and urge that section 7543(e)’s protectiveness test be read as a predicate requirement imposed on California that is “independent of and does not modify the language in the separate sentence establishing the needs test” imposed on EPA. Pet’r Br. at 53. Petitioners argue that “[t]he two different tests were intended to address entirely different issues[.]” *Id.* at 54. Regarding the latter, petitioners depict the evolution of section 7543(e) and its precursors – from the enactment of section 208 in 1967 through the enactment and amendment of section 209 in 1970, 1977 and 1990 – as one that shifted the burden away from California, to “justify” specific standards that were “more stringent” than federal standards (circa 1967 and 1970), and onto EPA, to deny any “particular” standard found not to meet “compelling and extraordinary conditions” (circa 1977 and 1990). *See generally id. at 47-55.* Petitioners are wrong on both counts.

1. Petitioners’ Statutory Interpretation Is Wrong.

First, Petitioners’ focus on the absence of the word “program” in section 7543 disregards, or ignores, EPA’s use of that term. As EPA noted at the time of its Decision, “EPA’s use of the word ‘program’ in this context is simply meant to describe the *group of standards* applicable to the engines and vehicles in question under California’s regulatory program The ‘program’ in this context is merely the standards being considered together.” 78 Fed. Reg. at 58,100 (emphasis in original).

Despite their urging that section 7543(e)(2)(A)(ii) requires EPA to examine California's "need" for a *particular*, singular "standard" in any one case, they cannot deny that section 7543(e)(2)(A)(ii) refers to "such California standards" in the plural – *i.e.*, the *same* California "standards" EPA examines in its "arbitrary and capricious" evaluation in subsection 7543(e)(2)(A)(i), and the *same* California "standards" to which California applies the protectiveness test in the first place. Nothing in the statutory text supports the distinction petitioners make or specifies that EPA must consider *only* California's need for the *particular* changes being made at any one time.

Petitioners' second statutory argument, *i.e.*, that the need to evaluate California's standards "in the aggregate" is one imposed only on California, not EPA, Pet'r Br. at 49, 54, is similarly flawed. Once more, the language "such California standards" in section 7543(e)(2)(A)(ii) refers back to the same standards for which the protectiveness determination is made "in the aggregate," thus implicating the nonroad program as a whole. Moreover, as even petitioners admit, *see* Pet'r Br. at 48, the "in the aggregate" language was added to the CAA in 1977, to address a specific issue that arose in the context of the protectiveness test, *i.e.*, the problem that control measures for one pollutant might potentially exacerbate the emissions of another (in particular, the possibility that control measures for NO_x would increase emissions of carbon monoxide).

California was eager to establish oxides of nitrogen standards considerably higher than applicable federal standards, but technological developments posed the possibility that emission control devices could

not be constructed to meet both the high California oxides of nitrogen standard and the high federal carbon monoxide standard Hence, Congress amended the waiver provision [in 1977] to require only that the California standards in the aggregate were at least as protective of public health and welfare as applicable federal standards. *This permits the State to maintain a high standard for oxides of nitrogen but a standard for carbon monoxide somewhat lower than the federal standard.*

MEMA I, 627 F.2d at 1110 n.32 (emphasis added). The burden imposed on EPA under section 7543(e)(2)(A)(i) and (ii) is to disapprove California's standards where it finds the State was arbitrary or capricious in making its protectiveness determination (section 7543(e)(2)(A)(i)) or, alternatively, to disapprove California's standards where EPA itself finds that "such . . . standards," in the plural, are not needed to meet compelling and extraordinary conditions (section 7543(e)(2)(A)(ii)). The same collection of standards is in play in both contexts. As EPA noted in its Decision:

[T]he creation of the 'in the aggregate' test for protectiveness is supportive of the argument that EPA is not to look at the need for each individual standard. If EPA were required [to do so], any individual standard that was less stringent than a federal standard might be considered unnecessary. This would obviate the rationale for looking at the protectiveness of California's standards 'in the aggregate' under the first criterion – effectively requiring EPA to give back in the second criterion what Congress explicitly gave California in its revision to the first criterion.

78 Fed. Reg. at 58,101. Nothing in the plain language of section 7543(e) supports the notion that section 7543(e)(2) requires "EPA to give back in the second criterion what Congress explicitly gave California" in the first.

2. Petitioners Misconstrue the Legislative History of 42 U.S.C. § 7543(e).

To the extent that the language of section 7543(e) is ambiguous, EPA's interpretation is, at a minimum, one that is reasonable and entitled to deference under *Chevron*, 467 U.S. at 837. EPA's interpretation is certainly not "unambiguously precluded" by the language of the statute. *See Riverkeeper*, 556 U.S. at 218 (agency's view "governs if it is a reasonable interpretation of the statute – not necessarily the only possible interpretation, nor even the interpretation deemed *most* reasonable by the courts") (emphasis in original). This is borne out by the very legislative history upon which petitioners rely.

First, petitioners' emphasis on the CAA's original California waiver provision, former section 208, Pub. L. No. 90-148, 81 Stat. 485 (Nov. 21, 1967), directly undermines their point. Pet'r Br. at 45-46. Former section 208's text created a universal federal preemption of "any [single] State standard" related to new vehicle emissions, but it also provided an exception for California unless EPA determined that California did not need standards – "a term that is both general and plural," *see* 78 Fed. Reg. at 58,100 -- that were "*more* stringent" than those required by federal law. *MEMA I*, 627 F.2d at 1109 (citing S. Rep. No. 403, 90th Cong., 1st Sess. 81 (1967)) (emphasis added). The parties may disagree about whether any other subsequent changes to the waiver provision had substantive effects, but it is beyond dispute that a change

from “more stringent” to “at least as protective” reflects a loosening of the burden imposed on California to obtain and retain a waiver under federal law.

Second, although petitioners cite to the addition of the clause, “in the aggregate” in 1977, Pet’r Br. at 48-49, they overlook the substantive importance of that phrase. While the legislative history of this addition is sparse, what is certain is that the clause, “in the aggregate,” removed any ambiguity as to the universe of standards against which a waiver request would be judged. If it was unclear in former section 208 whether California needed to show that *all* its standards were required to be “more stringent” than federal standards in order to obtain a waiver for “any” one, the 1977 amendments erased any doubt. As EPA noted in its Decision, the “in the aggregate” clause “requires EPA to waive preemption of individual California standards that, in and of themselves, might not be considered needed to meet compelling and extraordinary circumstances, but are part of California’s overall approach to reducing vehicle emissions[.]” 78 Fed. Reg. at 58,100. As this Court explained, “Congress had an opportunity to restrict the waiver provision in making the 1977 amendments, and it instead elected to expand California’s flexibility to adopt a complete program of motor vehicle emissions control.” *MEMA I*, 627 F.2d at 1110. While petitioners discuss the 1977 CAA amendments at length, Pet’r Br. at 47-53, they ignore this Court’s understanding of that law altogether. The omission is telling.

In *ATA*, this Court recognized that 42 U.S.C. § 7543(e)(2)(A)(ii) “gives California (and in turn EPA) a good deal of flexibility in assessing California’s regulatory needs.” 600 F.3d at 627. In furtherance of that flexibility, EPA considered CARB’s Fleet Requirements by correctly applying section 7543’s criteria.

B. EPA’s Interpretation Of Section 7543(e)(2)(A) is Consistent with Congressional Intent and Does Not Yield Absurd Results.

Petitioners further claim that EPA’s interpretation of section 7543(e)(2)(A)(ii), which focuses on California’s nonroad program as a whole rather than on individual emissions standards, “leads to absurd results.” Pet’r Br. at 56. They note, correctly, that in the event California no longer needs its own nonroad program “as a whole,” the CAA requires EPA to “make a finding to that effect and deny waiver applications” under section 7543(e)(2). The “absurd result” flowing from this outcome, they warn, is that when this happens “all previous waivers would no longer be ‘needed’” either and would have to be dismantled, in contravention of congressional intent. *Id.* On this point, petitioners are flat wrong.

EPA addressed petitioners’ “absurd results” argument in its Decision. There it acknowledged that air quality conditions in California “may one day improve such that it no longer has the need for a separate nonroad program” at all. 78 Fed. Reg. at 58,102. The CAA is designed to make such an outcome “possible” and, in that event – *e.g.*, if EPA found that California’s standards were no longer needed “to meet

compelling and extraordinary conditions” – the bases for disapproval under section 7543(e)(2)(A)(ii) would be triggered and a waiver request would be denied.

This does *not* mean that waivers previously granted to the State would be jeopardized, however. To the contrary, “the basis for previously waived or authorized standards would remain valid unless EPA determined that the compelling and extraordinary conditions would not exist even without those standards in place.” 78 Fed. Reg. at 58,102. The CAA *requires* this result through section 175A, 42 U.S.C. § 7505a, which directs States (like California) currently in nonattainment for NAAQS to prepare “maintenance plans” to add to their SIPs if and when they submit a request to be redesignated as in “attainment.” 42 U.S.C. § 7505a(a). Maintenance plans are intended to ensure that States’ SIPs continue to “implement all measures with respect to the control” of the relevant air pollutants “which were contained in the [SIP] for the area before redesignation” occurred. *Id.* § 7505a(d). In this case, this means that all CARB standards previously authorized before “compelling and extraordinary conditions” ended would remain in effect. “Considered as a whole, the [CAA] reflects Congress’s intent that air quality should be improved until safe and never allowed to retreat thereafter. Even if EPA set requirements that proved too stringent and unnecessary to protect public health, *EPA was forbidden from releasing states from these burdens.*” *S. Coast Air Quality Mgmt. Dist. v. EPA*, 472 F.3d 882, 900 (D.C. Cir. 2006) (emphasis added). Thus, petitioners’ warnings of dire scenarios are misplaced. EPA’s reading of section 7543(e) is fully consistent with congressional

intent.

IV. EPA'S DECISION SHOULD BE UPHOLD REGARDLESS OF HOW THE CRITERIA OF SECTION 7543 ARE ANALYZED.

For the reasons discussed in Section III above, petitioners' challenge to EPA's Decision should be rejected. Even if petitioners' interpretation of section 7543 were correct, however, EPA's authorization of California's nonroad standards was reasonable and must be affirmed.

EPA analyzed the criterion of whether "California does not need such California standards to meet a compelling and extraordinary need" under both EPA's longstanding approach to waivers under section 7543 and the approach suggested by petitioners. EPA included an extensive discussion of all of the evidence supporting California's need for CARB's Fleet Requirements, and discussed the requirement that opponents of the waiver bear the burden of demonstrating that California is not entitled to the waiver. 78 Fed. Reg. at 58,092. Following its thorough review, EPA concluded that "even if EPA were to use the alternative approach outlined above—that of reviewing the need for the Fleet Requirements per se to meet compelling and extraordinary conditions in California—EPA finds that the opponents of the authorization have not met their burden of proof. Therefore, even if EPA were to use this alternative approach, we could not deny the authorization on this basis." *Id.* at 58,110.

While they disagree with this finding, petitioners have presented no

substantive argument that EPA was arbitrary or capricious in reaching its conclusion.

For all their complaints about the serious “deficiencies” attached to EPA’s preferred interpretation of section 7543, Pet’r Br. at 59, petitioners do *not* challenge the merits of EPA’s Decision at all, including failing to challenge EPA’s determination that the same result would have been reached applying petitioners’ preferred test. *See* 78 Fed. Reg. at 58,103 and discussion, *infra* at 58-60.¹⁹ Accordingly, EPA’s waiver should be upheld, even were the Court to conclude that petitioners’ interpretation was the only permissible interpretation of section 7543.

EPA based its Decision upon its traditional review of whether California needs its nonroad program as a whole to meet compelling and extraordinary conditions in the State. 78 Fed. Reg. at 58,102. However, EPA *also* went further and analyzed CARB’s Fleet Requirements through the lens proposed by petitioners, *i.e.*, one “based on a review of whether the Fleet Requirements are *per se* needed to meet compelling and extraordinary conditions” in the State. *Id.* at 58,103.²⁰ EPA stressed that it received no comments as to how such an evaluation of “need” should be performed – *e.g.*, “how to weigh or balance evidence and [yet] provide CARB with the requisite

¹⁹ Because petitioners have failed to contest the merits of EPA’s waiver in their opening brief, they are barred from doing so in their reply. *See Coal River Energy, LLC v. Jewell*, 751 F.3d 659, 663 n. 3 (D.C. Cir. 2014).

²⁰ Indeed, during the public comment on EPA’s Decision, counsel for California Petitioners acknowledged that there was “*substantial evidence in the record*” to evaluate CARB’s Fleet Requirements using the methodology petitioners prefer. *See* Decision (footnote continued . . .)

policy deference” it is owed. *Id.* at 58,103. It also emphasized that the Fleet Requirements’ opponents had failed to satisfy their burden of proof “to overcome CARB’s stated need for its Fleet Requirements,” *id.* All the same, EPA addressed California’s current and projected future air quality – and the potential health effects from diesel exhaust (particularly as to particulate matter) -- at length. *Id.* at 58,103-10.²¹ EPA ultimately concluded that “even if [it] were to use the alternative approach,” *i.e.*, the one proposed by petitioners, opponents of the authorization

docket 0691-0304, at 1-10 (JA 420 (emphasis added)).

²¹ EPA’s analysis included a detailed consideration of comments from petitioners, and others, regarding California’s need for its Fleet Requirements and the national and California-specific data on emissions from off-road diesel equipment. *See* 78 Fed. Reg. at 58,103 & n. 84 (citing Decision docket 0691-0303) (Associated General Contractors of America) (JA 385); *id.* (citing Decision docket 0691-0317) (Construction Industry Air Quality Coalition) (JA 450); and *id.* (citing Decision docket 0691-0309) (California Construction Trucking Association) (JA 457). *See also* Decision docket 0691-0302 & 0691-0320 (Pacific Legal Foundation) (JA 392, 491); Decision docket 0691-0315 (Delta Construction) (JA 396); Decision docket 0691-0316 (United Contractors) (JA 421); Decision docket 0691-0317 (Construction Industry Air Quality Coalition) (JA 450); Decision docket 0691-0310 (ARTBA) (JA 470). The question of whether California needs the specific Fleet Requirements submitted by CARB was raised through these comments in depth. EPA also reviewed comments addressing the allegedly unique properties of particulate matter emissions in California, *see* 78 Fed. Reg. at 58,105 & n. 94 (citing Decision docket 0691-0307) (Dr. Matthew Malkan) (JA 424); *id.* & n.97 (citing Decision docket 0691-0308) (Dr. James Enstrom) (JA 427); *id.* & n.96 (citing Decision docket 0691-0313) (Dr. Robert F. Phalen) (JA 476), as well as comments suggesting that California’s environmental laws (*i.e.*, its Environmental Quality Act) made CARB’s Fleet Requirements unnecessary altogether. *See* 78 Fed. Reg. at 58,103 (citing Decision docket 0691-0305) (Altfillisch Contractors) (JA 473). EPA also reviewed CARB’s initial and supplemental comments on these issues. *See generally* 78 Fed. Reg. 58,103 & n. 86-87; *id.* at 58,105 & n. 101-07 (citing Decision docket 0691-0318) (CARB written comments) (JA 429); *id.* (citing Decision docket 0691-0319) (CARB (footnote continued . . .)

failed to show that California did not need its CARB's Fleet Requirements to meet "compelling and extraordinary conditions." *Id.* at 58,110. Petitioners offer nothing to undercut that conclusion.²²

CONCLUSION

As demonstrated above, the petitions for review should be dismissed.

Respectfully submitted,

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supplemental comments) (JA 477).

²² Given EPA's thorough consideration of petitioners' comments (*supra* at 58-60 & n.21) and its probing evaluation of the need for California's nonroad standards even under petitioners' alternative test, *id.*, the Court need not address petitioners' final arguments regarding vacatur. *See* Pet'r Br. at 58-60.

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CERTIFICATE OF COMPLIANCE WITH WORD LIMITATION

Pursuant to Federal Rule of Appellate Procedure 32(a)(7)(C), I hereby certify that the foregoing Brief of Respondent EPA contains 13,592 words as counted by the Microsoft Office Word 2013 word processing system, and thus complies with the applicable word limitation.

/s/ Joshua M. Levin
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CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing Brief of Respondents was served, this 16th day of July, 2015, on all registered counsel, through the Court's CM/ECF system:

/s/ Joshua M. Levin
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ORAL ARGUMENT NOT YET SCHEDULED

No. 13-1283
(Consolidated with 13-1287)

IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

DALTON TRUCKING, INC., et al.,

Petitioners,

v.

ENVIRONMENTAL PROTECTION AGENCY, et al.,

Respondents.

On Petition for Review from the Environmental Protection Agency
EPA-78 Fed. Reg. 58090

**FINAL JOINT REPLY BRIEF OF PETITIONERS DALTON
TRUCKING, INC., ET AL., AND AMERICAN ROAD &
TRANSPORTATION BUILDERS ASSOCIATION**

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GLOSSARY

A P A	A d m i n i s t r a t i v e P r o c e d u r e A c t
A R T B A	A m e r i c a n R o a d & T r a n s p o r t a t i o n B u i l d e r s A s s o c i a t i o n
C A A	C l e a n A i r A c t
C A R B	C a l i f o r n i a R e s o u r c e s B o a r d
C O	C a r b o n M o n o x i d e
E P A	E n v i r o n m e n t a l P r o t e c t i o n A g e n c y
L E V	L o w - E m i s s i o n V e h i c l e
P M 2.5	P a r t i c u l a t e M a t t e r o f 2.5 m i c r o n s o r l e s s i n d i a m e t e r
N O x	O x i d e s o f N i t r o g e n

INTRODUCTION

Petitioners in Nos. 13-1283 (collectively, the “California Petitioners”) and 13-1287 (American Road & Transportation Builders Association or “ARTBA”) file this reply to the briefs of respondents Environmental Protection Agency and its Administrator (collectively, “EPA”) and intervenor California Air Resources Board (“CARB”). For the reasons set forth here and in their opening brief, petitioners respectfully submit that this Court must transfer these cases to the Ninth Circuit for lack of venue. If it finds venue proper here, this Court should vacate EPA’s waiver, which EPA based on an impermissible interpretation of Clean Air Act (“CAA”) waiver standards under § 209(e)(2), 42 U.S.C. § 7543(e)(2). Lastly, if it affirms the waiver without resolving ARTBA’s argument that other states cannot adopt these California standards, this Court should transfer ARTBA’s challenge to the United States District Court for the District of Columbia.

There is no dispute among the parties regarding nine central facts. First, the California emissions standards at issue here apply only to nonroad diesel vehicles that operate in California, and as to those vehicles, the standards apply only when the vehicles actually operate in California. Second, the geographic territory covered by EPA’s grant of the waiver application is exclusively California. Third, CARB—the waiver applicant—has jurisdiction only over vehicle emissions that occur within California. Fourth, all of the California Petitioners and their officers and employees

are located exclusively in California. Fifth, EPA did not make a finding that its waiver had “nationwide scope and effect;” rather, EPA found that it was of “national applicability.” Sixth, no one can predict when other states may adopt the California emissions standards at issue here. Seventh, § 209(e)(2)(A) requires satisfaction of both the “protectiveness” and “needs” tests in that subsection for EPA to waive preemption. *See* 42 U.S.C. § 7543(e)(2)(A). Eighth, only two air basins in California are in nonattainment for the federal PM_{2.5} and the 8-hour ozone standards. And, ninth, judicial review of agency action is presumed unless there is clear evidence of Congressional intent to prohibit judicial review, or if there is no law for a court to apply. These undisputed facts are conclusive and favor Plaintiffs.

SUMMARY OF ARGUMENT

Under § 307(b)(1), venue is proper here only for nationally applicable actions and for actions that EPA finds to have a nationwide scope or effect. 42 U.S.C. § 7607(b)(1); Pet’rs’ Br. at 18. Here, EPA made a national-applicability finding, not the statutorily contemplated nationwide-scope-or-effect finding, which deprives EPA’s finding of any relevance. Moreover, the record is devoid of any relevant facts found, as well as the rational connections between those facts and EPA’s finding. Further, EPA cannot dispute that both the CARB standards and EPA’s waiver apply only in California. There could be no clearer example of an EPA action that is “locally or regionally applicable” under § 307(b)(1).

With respect to other states' ability to adopt CARB's standards, the Ninth Circuit's deference to this Court on venue puts any national implications of the venue determination in this Court. EPA's analogizing other states' adopting the California Low-Emission Vehicle ("LEV") program to this in-use fleet average is misplaced because the LEV program's declining fleet average merely modified the ratio at which manufacturers sold the same types of new vehicles already sold in California. Here, the declining average directly affects each existing vehicle in a fleet, and denying the CARB's leadtime for California fleets changes the rule.

On the merits, EPA's waiver failed to make the CAA-required showing that California needs these standards—not its whole vehicular-emission program—to address compelling and extraordinary conditions. Under the statutory text and history, as well as this Court's prior holdings, EPA's contrary position is specious. Similarly, because these rules could have been localized to the only two air basins in California in nonattainment of the relevant ozone and particulate-matter standards, neither EPA nor CARB could make the required "needs" showing.

On the justiciability of ARTBA's claims, Article III does not require a case or controversy to argue venue in an existing case or controversy, and ARTBA does not need to name individual members because CARB's standard injures the entire construction industry, which is confirmed by prior ARTBA-EPA-CARB litigation. As

to ripeness, EPA's positions injure ARTBA members now in negotiations with their states, which would satisfy Article III if that were necessary to argue venue.

ARGUMENT

EPA argues for deference under *Chevron U.S.A., Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837 (1984). But that case is inapposite:

First, always, is the question whether Congress has directly spoken to the precise question at issue. If the intent of Congress is clear, that is the end of the matter; for the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress.

Id. at 842-43. *Chevron* deference applies only when EPA's position flows from a "permissible construction of the statute," *id.* at 843, which is not the case here.

Chevron does not allow agencies to rewrite statutes in the guise of interpreting them: "for *Chevron* deference to apply, [an administrative] agency must have received congressional authority to determine the particular matter at issue in the particular manner adopted." *City of Arlington, Tex. v. F.C.C.*, 133 S. Ct. 1863, 1874 (2013); *see also Food & Drug Admin. v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120, 125 (2000) (agencies must implement statutes as written, bearing in mind the specific language and structure of the statute at issue). As the Supreme Court recently stated:

Even under *Chevron*'s deferential framework, agencies must operate within the bounds of reasonable interpretation. And reasonable statutory interpretation must account for both the specific context in which . . . language is used and the broader context of the statute as a whole. A

statutory provision that may seem ambiguous in isolation is often clarified by the remainder of the statutory scheme . . . because only one of the permissible meanings produces a substantive effect that is compatible with the rest of the law. Thus, an agency interpretation that is inconsisten[t] with the design and structure of the statute as a whole, does not merit deference.

Utility Air Regulatory Group v. EPA, 134 S. Ct. 2427, 2442 (2014) (citations and internal quotations omitted). As explained below, EPA’s interpretations on both venue and the merits simply are not “within the bounds of reasonable interpretation.”

Id.

I

THIS COURT IS NOT THE PROPER VENUE FOR THIS ACTION

Because EPA’s national-applicability finding is wrong, venue is improper here. Accordingly, this Court should transfer these cases to the Ninth Circuit or, alternatively for ARTBA, to district court. 28 U.S.C. §§ 1391(e), 1631.

A. Neither § 307(b)(1)’s First Sentence Nor Its Third Sentence Apply

Under § 307(b)(1)’s first and third sentences, venue is proper in this Court for review both of nationally applicable EPA actions and of EPA actions with nationwide scope or effect, with the latter requiring an EPA finding. *See* Pet’rs’ Br. at 23. The second sentence unambiguously provides that EPA action “which is locally or regionally applicable may be filed only in the United States Court of Appeals for the

appropriate circuit.” 42 U.S.C. § 7607(b)(1) (emphasis added). Here, EPA did not make the nationwide-scope-and-effect finding required to set venue under section 307(b)(1)’s third sentence but instead found national applicability based expressly and exclusively on “entities outside [California] who must comply with California’s requirements”:

My decisions will indirectly affect not only persons in California, but also entities outside the state who must comply with California’s requirements. For this reason, I determine and find that this is a final action of national applicability for purposes of section 307(b)(1) of the Act.

78 Fed. Reg. 58090, 58121 (Sept. 20, 2013) (JA-1794) (emphasis added). This vague statement might reference either non-California fleets operating in California or non-California fleets in states that adopt the California standards. Indeed, EPA now claims both rationales. EPA Br. at 27-28, 32-33. Administrative law does not allow such vagueness.

Instead, agencies must articulate a rational connection between the facts found and the choices made, *Motor Vehicle Mfrs. Ass’n v. State Farm Mut. Auto Ins. Co.*, 463 U.S. 29, 43 (1983), on “the basis articulated by the agency itself” in the record. *Id.* at 50; *SEC v. Chenery Corp.*, 332 U.S. 194, 196 (1947). Where, as here, agencies fail abjectly to cite such facts and articulate such rational connections, courts cannot uphold agency action. Thus, this Court cannot credit EPA for work it has not shown but instead must limit EPA to the specific facts found and connections drawn.

On the issue of whether the waiver decision is either of “national applicability” or “nationwide scope or effect,” the undisputed facts are these: (1) the California nonroad diesel emissions standards apply only to nonroad vehicles that operate in California, and as to those vehicles, only during the time that they actually operate in California; (2) no one can predict when other states may adopt those California emissions standards; (3) the actual geographic territory covered by EPA’s grant of the waiver application is located exclusively in California; and (4), CARB, which applied for the waiver, has jurisdiction only over vehicle emissions that occur within the California. Given these undisputed facts, EPA at the very least should have articulated the bases upon which it determined that its waiver was sufficiently “national” to implicate § 307(b)(1)’s first or third sentences over the regional applicability of that section’s second sentence.

On the basis of its national-applicability finding, EPA argues the instant challenge may be heard only in this Court. The argument is without merit because EPA’s finding is not the finding mandated by § 307(b)(1)’s third sentence. That sentence states, if EPA determines in a published finding that its action is of “nationwide scope or effect,” venue lies in this Court for challenges to that action. EPA did not make that finding. Even EPA acknowledges this fact. EPA Br. at 34. Because EPA did not make the statutorily mandated finding, § 307(b)(1)’s third sentence is not even implicated; consequently, the waiver is “locally or regionally

applicable” under the second sentence of that section. Accordingly, this case should be decided by the Ninth Circuit.

But even if it allowed EPA to substitute national-applicability findings for statutorily mandated nationwide-scope-or-effect findings, this Court still would need to transfer this case to the Ninth Circuit because EPA did not specifically identify the facts found or expressly define the determination made, much less articulate a rational connection between those facts and that determination. Given California’s nexus with this EPA action, the waiver decision is “locally or regionally applicable” within the meaning of § 307(b)(1)’s second sentence. Therefore, the case should be heard in the Ninth Circuit.

1. § 307(b)(1)’s First and Third Sentences Pose Different Tests

Although EPA argues § 307(b)(1)’s first and third sentences pose the same test, EPA Br. at 34, the two sentences obviously address different things. The first addresses agency action that itself *applies* nationally, whereas the third addresses actions that *do not apply nationally*—and thus would fall under § 307(b)(1)’s second sentence—those actions which nonetheless have nationwide scope or effect, even though they lack national applicability.

Statutory language is important. *Moskal v. U.S.*, 498 U.S. 103, 109 (1990) (courts must give effect to every clause and word of a statute). Congress prescribed

precisely the finding that EPA must make in order to give effect to § 307(b)(1)'s third sentence. In context, § 307(b)(1)'s first sentence provides that “nationally applicable” final actions must be heard only in this Court. The second sentence flows from the first and provides that locally or regionally applicable actions must be heard only in the court of appeals with jurisdiction over the specific locality or region affected by the agency action. The third sentence modifies the second sentence, but not the first sentence, by stating in the introductory clause: “*Notwithstanding the preceding sentence. . . .*” That third sentence trumps the second sentence, but only when EPA makes a specific finding that an action is of “nationwide scope and effect.” The fact that Congress chose the formulation “nationwide scope and effect” in the third sentence and did not repeat the term “national applicability” used in the first sentence is not accidental. “[W]here Congress includes particular language in one section of a statute but omits it in another section of the same Act, it is generally presumed that Congress acts intentionally and purposely in the disparate inclusion or exclusion.” *Rodriguez v. U.S.*, 480 U.S. 522, 525 (1987) (quoting *Russello v. U.S.*, 464 U.S. 16, 23 (1983)).

Although EPA asserts “[an] action of ‘national applicability,’ *per se*, has ‘nationwide scope and effect,’” EPA Br. at 34 (emphasis in original), the Supreme Court would disagree with the general notion that different terms in a statute mean the same thing. *See Russello*, 464 U.S. at 23 (inclusion and exclusion of a specific term

in different parts of statute can significantly affect its meaning, scope, and applicability); *see also*, *North Haven Bd. of Ed. v. Bell*, 456 U.S. 512, 521 (1982) (Congress could easily have substituted different language in Title IX “if it had wished to restrict [its] scope.”).

Indeed, the two terms do not describe identical things, and that is why § 307(b)(1)’s first and third sentences use different terms. Context is important. An agency action that is “nationally applicable” applies to the nation (first sentence), while an agency action that is “locally or regionally applicable” does not (second sentence). The third sentence modifies the second sentence by providing that, even where an agency action is only “locally or regionally applicable,” if that action has “nationwide scope and effect,” i.e., if the action itself does not *apply* to the nation but *impacts* the nation, challenges to *that* action should be decided by this Court. Thus, the terms “nationally applicable” and “nationwide scope and effect” are not synonymous. By failing to make the finding specifically mandated by Congress in § 307(b)(1)’s third sentence, EPA failed to meet the threshold condition set forth in that sentence.¹

¹ The legislative history supports the textual argument. *See* H.R. Rep. No. 95-294 at 324 (1977), *reprinted in* 1977 U.S.C.C.A.N. 1077, 1403 (“if any action of the Administrator is found by him to be based on a determination of *nationwide scope and effect* . . . then exclusive venue for review is in the U.S. Court of Appeals for the District of Columbia Circuit.”) (emphasis added).

2. EPA's Sentence-Three Findings Are Reviewable *De Novo*

Apparently recognizing that it made an incorrect finding, EPA asserts that any finding EPA makes under § 307(b)(1)'s third sentence is immune from judicial review. EPA Br. at 37. That assertion is not only meritless but also largely irrelevant: the CAA does not even authorize national-applicability findings. Even if nationwide-scope-and-effect findings were immune from judicial review (they are not), that immunity would not protect national-applicability findings like the one here.

Simply put, the CAA does not authorize or even invite nationwide-applicability findings. EPA's citation to *Alcoa, Inc. v. EPA*, No. 04-1189, 2004 WL 2713116, at *1 (D.C. Cir. Nov. 24, 2004) is inapposite. There, the Court observed that EPA had "unambiguously determined that the [ozone standard] has nationwide scope and effect." *Id.* Indeed, EPA's Federal Register notice for the ozone standard published *precisely that* determination: "[EPA] . . . is determining that the final designations are of *nationwide scope and effect* for purposes of section 307(b)(1)." 69 Fed. Reg. 23858, 23875 (April 30, 2004) (emphasis added) (JA-135). By contrast, here EPA did not make the statutorily mandated determination. Thus, EPA is wrong when it asserts that it made the same § 307(b)(1) determination that it made in *Alcoa*. See EPA Br. at 36. For the same reasons, EPA's citations to *Puerto Rican Cement Company v. EPA*, 889 F.2d 292, 300 (1st Cir. 1989), and *Sierra Club v. Leavitt*, 368 F.3d 1300, 1308 n.12 (11th Cir. 2004), are to no avail. No court has ever held that a finding of

“national applicability” is tantamount to a finding of “nationwide scope and effect” required by § 307(b)(1)’s third sentence.

In any event, administrative action comes with a strong presumption of reviewability, which can be rebutted only by a clear showing of congressional intent to shield agency action from judicial review. *See* Pet’rs’ Br. at 19 (quoting *Abbott Labs v. Gardner*, 387 U.S. 136, 141 (1967)). Moreover, judicial review is available (1) except where a statute explicitly prohibits it, or (2) when it is “committed to agency discretion by law” under 5 U.S.C. § 701(a)(2) because there is “no law to apply.” *Citizens to Preserve Overton Park v. Volpe*, 401 U.S. 402, 410 (1971). In the context of the “no law to apply” standard, it must be “unmistakable” that there is no meaningful standard against which to judge the agency action. *Sierra Club v. Peterson*, 705 F.2d 1475, 1479 (9th Cir. 1983). Because EPA’s determinations under section 307(b)(1)’s third sentence are not explicitly precluded from judicial review, review is available for such decisions unless it is unmistakable that there is no meaningful standard against which to review such decisions.

The Supreme Court’s decision in *Heckler v. Cheney*, cited but misread by EPA, sheds light on the issue. EPA cites *Heckler* for the proposition that the instant case provides one of the “rare circumstances” where an agency action is unreviewable, but they offer no argument as to why this is such a rare circumstance. EPA Br. at 37.

Moreover, EPA ignores one of the most important contributions of *Heckler* on the question of reviewability:

[W]hen an agency refuses to act it generally does not exercise its *coercive* power over an individual's liberty or property rights, and thus does not infringe upon areas that courts are often called upon to protect [but] when an agency *does* act to enforce, that action itself provides a focus for judicial review, inasmuch as the agency must have exercised its power in some manner. The action at least can be reviewed to determine whether the agency exceeded its statutory powers.

Heckler v. Cheney, 470 U.S. 821, 830 (1985). Here, EPA *acted* when it granted California's waiver request. Under *Heckler*, that action "can be reviewed to determine whether the agency exceeded its statutory powers." *Id.*

EPA's citation to *Lincoln v. Vigil*, 508 U.S. 182, 190-91 (1993), is misplaced. In that case, an agency reallocated its resources to assist handicapped Native American children, where it had discretion as to how to use lump sum funds provided by Congress. *Id.* at 193-94. By contrast, here, Congress specified the finding that § 307(b)(1)'s third sentence requires. Congress delegated no discretion for EPA's alternate finding.

EPA also argues that its finding under § 307(b)(1)'s third sentence is entitled to *Chevron* deference. Here, the agency misconstrued the statute by equating a national-applicability finding with a nationwide-scope-or-effect finding. As indicated in Section I.A.1, *supra*, the two terms are not synonymous. Likewise, an agency interpretation of a statute is impermissible if it "is not one that Congress would have

sanctioned.” *Chevron*, 467 U.S. at 845. Both the text of § 307(b)(1)’s third sentence and the CAA’s legislative history show that it is impermissible for EPA on its own motion to substitute a national-applicability finding for the statutorily required nationwide-scope-or-effect finding. This would amount to rewriting the CAA, something beyond EPA’s authority. *Brown & Williamson*, 529 U.S. at 125.

3. EPA’s Waiver Is Not Nationally Applicable

By their terms, these CARB standards *apply* only in California, 13 Cal. Code Regs. § 2449(b)(1), which indeed is common to all EPA waivers, notwithstanding the ability of other states to adopt California standards. *Ford Motor Co. v. Env’tl. Prot. Agency*, 606 F.2d 1293, 1302 (D.C. Cir. 1979). EPA cannot rebut this clear fact.²

EPA discusses several cases addressed by petitioners, but it misreads those cases. The “face” of a regulation determines national applicability. *Natural Res. Def. Council, Inc. v. Thomas*, 838 F.2d 1224, 1249 (D.C. Cir. 1988); *ATK Launch Sys., Inc. v. EPA*, 651 F.3d 1194, 1197 (10th Cir. 2011) (“[T]he Clean Air Act provision makes clear that [courts] must analyze whether the regulation itself is nationally applicable . . .”). Here, the face of the waiver shows that it applies directly only to CARB and indirectly only to those who operate nonroad vehicles in California. EPA ignores those facts.

² ARTBA argues that other states cannot adopt these CARB standards, *see* Section I.B, *infra*, which likely requires this Court to address the other-state issue.

4. EPA Has Not Established Nationwide Scope or Effect

Assuming *arguendo* that this Court could substitute a nationwide-scope-or-effect finding for EPA's incorrect national-applicability finding, the modified EPA finding still would be at odds with the record. It is undisputed that CARB's standards and EPA's waiver apply only to California and that no nonroad vehicles that operate outside of California need meet the California standards. As CARB explained at a public hearing regarding the waiver application, CARB's rules apply only to equipment operated in California, Pet'rs' Br. at 25, which belies any finding of "national applicability." *See also id.* at 31 (quoting 13 Cal. Code Regs. § 2449(b)(1)). It is also undisputed that the challenged EPA action did not find any facts relevant to its nationwide-scope-or-effect finding, much less draw rational connections between those facts and EPA's finding; EPA has not given this Court a basis on which to affirm EPA's finding.

a. In-California Operation of Non-California Fleets Is Not Nationwide

EPA supports its nationwide-scope-or-effect finding by arguing that non-California-based fleet operators must comply with CARB standards when their fleets operate in California. EPA Br. at 33. But only vehicles operating in California must comply with California's standards. *See Madison Gas & Electric Co. v. EPA*, 4 F.3d 529, 530 (7th Cir. 1993) (challenge to allocation of emissions allowances at

local facility is issue of local applicability); *Texas Mun. Power Agency v. EPA*, 89 F.3d 858, 866-67 (D.C. Cir. 1996) (dispute over emissions in Ohio “no more ‘national’ than the one at issue in *Madison Gas*”). Moreover, EPA does not even try to rebut petitioners’ arguments that California’s border states all are in the Ninth Circuit—thus supporting regional applicability—and that the record lacks facts for faraway fleets winning California work and being shipped to California. *See* Pet’rs’ Br. at 36-37. EPA’s *post hoc* rationale is baseless.

b. Non-California Operations in Opt-In States Do Not Support EPA’s Sentence-Three Finding

EPA also supports its nationwide-scope-or-effect finding by arguing that the CARB standards will apply outside California when other states adopt CARB’s standards. EPA Br. at 27. First, EPA’s Federal Register notice neither finds facts nor draws rational connections between any facts and the nationwide-scope-or-effect finding. Second, assuming *arguendo* that EPA’s vague finding alluded to other states’ adopting these CARB standards, no state has done so yet, and EPA does not provide any facts on when other states may adopt CARB’s standards. Third, ARTBA argues that other states cannot adopt *these* CARB standards, see Section I.B, *infra*, which (if true) would negate a nationwide-scope-or-effect finding, if EPA had made one.

B. Other States Cannot Adopt These CARB Standards

EPA raises various objections to ARTBA's arguments that other states cannot opt into these particular CARB standards under § 209(e)(2)(B)'s criteria, such as:

(1) the national implications of ARTBA's argument implies venue in this Court, (2) ARTBA impermissibly challenges EPA's interpretations and the CAA itself, and (3) the history of California's LEV program implies that other states can adopt declining emission standards for in-use fleets. EPA Br. at 41-44. ARTBA submits that each EPA objection is inapposite.

First, given the Ninth Circuit's referring the venue question here, this Court will decide the only "national" issue even arguably involved here (namely, whether other states may adopt these CARB standards). Significantly, that issue goes to venue, not to the merits question (namely, whether EPA properly waived preemption for CARB enforcing these standards in California). This Court must decide the venue issue and, if venue is lacking, defer to the Ninth Circuit on the merits. *Am. Rd. & Transp. Builders Ass'n v. EPA*, 705 F.3d 453, 455-56 (D.C. Cir. 2013) ("*ARTBA III*").

Second, it is EPA—not ARTBA—that seeks to amend the CAA to fit in-use retrofit standards, something that was not "envision[ed]" in 1994. 59 Fed. Reg. 36969, 36974 (July 20, 1994). In-use retrofits differ fundamentally from new-vehicle standards, and it is unsurprising that regulatory outcomes would differ as well. Specifically, Congress required *both* identity and a two-year lead time. Other

states cannot adopt declining fleet-average standards already underway in California with two year's lead time and simultaneously be identical, at least not for fleet-average standards premised on gradual annual-adoption rates. It is no answer that ARBTA's argument is "likely to be inherent in *any* emissions program outside of California that targets in-use . . . fleets." EPA Br. at 44 (EPA's emphasis). If ARTBA is right, other states cannot adopt these California standards until Congress amends § 209(e).

Third, EPA does not dispute that its long list of LEV-related citations all concern manufacturers selling northeasterners the same four types of cars sold in California. Pet'rs' Br. at 39. EPA insists that it is not cavalier to argue the equivalence of requiring non-California fleets to meet CARB's 2019 standards in the *first year* of regulation, when California fleets had five years to attain that level of fleetwide retrofit. EPA Br. at 43-44. Obviously, EPA simply has no idea how to manage fleets.

While it might be easy to require that all new hires be bilingual, it would be another thing entirely to require bringing an existing workforce up to that standard. If a hypothetical "employee-retrofit" rule phased in gradually like CARB's standards, then forcing additional workforces to jump five years into the adoption curve would obviously differ from the shallower adoption curve faced by workforces initially subject to the rule. Pet'rs' Br. at 39-40. Significantly, CARB premised the feasibility of its standards on the gradual adoption curve, *id.*, and the CAA requires lead time and

identity. 42 U.S.C. § 7543(e)(2)(B)(i)-(ii). EPA simply wishes the statute read differently.

C. If It Can Resolve These Petitions Without Resolving ARTBA's Other-State Claims, This Court Should Transfer ARTBA's Claims to the District Court

If this Court retains these cases and decides the lawfulness of EPA's waiver, without also resolving ARTBA's other-states arguments, the district court would have statutory subject-matter jurisdiction under 28 U.S.C. § 1331 because the CAA's special statutory review would not displace district-court review. Pet'rs' Br. at 42. ARTBA raises transfer under 28 U.S.C. § 1631 as a fallback position to ensure that *a court* can hear ARTBA's claims if *this Court* will not. In the event that this Court retains these cases, however, ARTBA respectfully submits that this Court not only should but must reach ARTBA's other-state arguments for two reasons.

First, as explained in Sections I.A.3-I.A.4, *supra*, the ability of other states to adopt these CARB standards goes directly to at least some of the bases on which EPA now deems venue proper here. If other states cannot adopt these standards, the standards are not themselves nationally applicable, and other states' adoption cannot provide a nationwide scope or effect.

Second, while EPA's sentence-three finding is opaque, EPA now bases its finding in part on other states' ability to adopt these CARB standards. EPA Br. at 27. When EPA waivers address non-California usage of CARB standards, this Court has

reached the merits of industry-EPA disputes over those issues. *Ford*, 606 F.2d at 1299. ARTBA respectfully submits that this Court should do so here, even though the issue goes only to venue.

In any event, EPA's proffered alternate remedy—suing each opt-in state—is an inadequate remedy. First, a multiplicity of suits would irreparably harm ARTBA in its own right. *Idaho v. Coeur d'Alene Tribe of Idaho*, 521 U.S. 261, 273-74 (1997); *Reed Enterprises v. Corcoran*, 354 F.2d 519, 523 (D.C. Cir. 1965). Second, none of those suits would provide relief *against EPA*, which provides or regulates the states' need to provide emission reductions in the first place. As such, relief against EPA—whether here or in the district court—barring the crediting of emission reductions from other states' adoption of these California standards would redress construction-industry injuries by removing these California standards from the list of acceptable control measures for future state emission-reduction needs. Third, a later-arising statutory action would not displace an equity action that has arisen now. *Am. Life Ins. Co. v. Stewart*, 300 U.S. 203, 215 (1937). For these reasons, the district court would have jurisdiction for ARTBA's dispute with EPA if this Court does not.

D. ARTBA Did Not “Waive” Objections To Venue by Filing in This Court

EPA argues ARTBA waived objections to venue by petitioning only this Court, in contrast to the California Petitioners who petitioned both here and in the Ninth Circuit. EPA Br. at 39-40.³ EPA’s argument is both factually and legally flawed.

Factually, ARTBA petitioned this Court for review protectively, hoping to challenge EPA’s nationally applicable preemption rules as applied to these CARB standards, but this Court held that § 307(b)(1) lacks jurisdiction for such challenges, and the Supreme Court denied review. *ARTBA III*, 705 F.3d at 457, *cert. denied* 134 S. Ct. 985 (2014). ARTBA’s response to this Court’s case-initiating order dated November 18, 2013, changed ARTBA’s focus to protecting non-California members, which easily meets the “seasonable-challenge” test applicable to venue.

Legally, EPA misunderstands what the Constitution allows vis-à-vis what the applicable rules and § 307(b)(1) provide as to venue. The authorities that EPA cites for waiver merely hold that Due Process would not prohibit a rule waiving plaintiffs’ objections to venue for permissible cross-claims, *Adam v. Saenger*, 303 U.S. 59, 67-68 (1938), which even those authorities acknowledge “has nothing whatever to do with . . . rights” under statutes or rules—separate from the Constitution—that address

³ EPA does not argue that the California Petitioners waived objections to venue. *Id.*

venue. *Olberding v. Illinois Cent. R. Co.*, 346 U.S. 338, 341 (1953).⁴ Here, there is no venue-waiver rule analogous to the *Adam* rule, and neither EPA nor this Court can retroactively change the rules on venue under § 307(b)(1) without a rulemaking. *Hollingsworth v. Perry*, 130 S. Ct. 705, 710-11 (2010) (courts); *Georgetown Univ. Hosp. v. Bowen*, 821 F.2d 750, 758-60, (D.C. Cir. 1987), *aff'd*, 488 U.S. 204, 215-16 (1988) (agencies). Instead, like defendants and respondents, plaintiffs and petitioners can challenge venue, *Manley v. Engram*, 755 F.2d 1463, 1469-70 (11th Cir. 1985); *Am. Standard, Inc. v. Bendix Corp.*, 487 F. Supp. 254, 260 (W.D. Mo. 1980) (collecting authorities), provided that they do so “seasonably.” *Neirbo Co. v. Bethlehem Shipbuilding Corp.*, 308 U.S. 165, 168 (1939). Respondents do not argue that ARTBA raised venue unseasonably and so have waived that issue.⁵

II

EPA USED THE WRONG STANDARD IN GRANTING CALIFORNIA’S WAIVER APPLICATION

EPA and CARB argue that *Chevron* deference should be afforded to EPA’s interpretation of the CAA’s waiver provisions. They are wrong.

⁴ Insofar as it concerned a defendant’s venue challenge, *Olberding* is *dicta* on the question of plaintiffs’ waiving venue. *Id.* at 340.

⁵ EPA’s suggestion that issues raised in ARTBA’s case-initiating documents trigger the *Neirbo* submission-by-conduct test (*e.g.*, seeking to contest venue after entry of a default judgment, *id.*) is frivolous.

All parties agree the CAA generally preempts state regulation of vehicular emissions, while § 209(e) provides limited authority for EPA to authorize California to adopt standards for nonroad engines and vehicles that differ from the federal standards. That limited authority is conditioned on specific findings that EPA must make in order to authorize California standards that differ from the federal ones.

At issue here is the statutory requirement that “[n]o such authorization shall be granted if [EPA] finds that . . . California does not need such California standards to meet compelling and extraordinary conditions.” 42 U.S.C. § 7543(e)(2)(A)(ii). It is significant that California must apply for waivers from federal preemption on a case-by-case basis whenever it proposes to add a new state standard for vehicle emissions. *Motor & Equip. Mfrs. Ass’n v. Environmental Protection Agency*, 627 F.2d 1095, 1111 (D.C. Cir. 1979); *Engine Mfrs. Ass’n v. U.S. EPA*, 88 F.3d 1075 (D.C. Cir. 1996). And it is significant that the Act requires EPA not to grant any California waiver application unless California makes a showing that it has “compelling and extraordinary conditions” necessitating the particular standards for which waiver is sought. *See* 42 U.S.C. § 7543(e)(2)(A)(ii). Such is the statutory context of the California waiver provision at issue here. *See Robinson v. Shell Oil Co.*, 519 U.S. 337, 341 (1997) (“specific context in which [statutory] language is used, and the broader context of the statute as a whole” must be taken into account when interpreting a statutory provision).

As set forth in more detail in the Petitioners' Opening Brief, the term "such California standards" does not refer to the entire California mobile source emissions program, as the term "program" is not used even once in § 209(e), while the term "in the aggregate" appears only once in the section and, when it does, it refers only to the "protectiveness" test added to the CAA as part of the 1977 amendments. Pet'rs' Br. at 42-56. EPA and CARB argue the term "in the aggregate" applies to both the protectiveness test and the needs test, but the statutory text does not support such an argument. Thus, the term "in the aggregate" appears only in the sentence addressing the protectiveness standard:

[T]he Administrator shall . . . authorize California to adopt and enforce standards and other requirements . . . if California determines that California standards will be, *in the aggregate*, at least as protective of public health and welfare as applicable Federal standards.

42 U.S.C. § 7543(e)(2)(A) (emphasis added). Notably, that sentence authorizes *California* to make the protectiveness determination, and actually *requires* EPA to authorize California to adopt and enforce the state standards if California makes *that* protectiveness determination, "in the aggregate." By contrast, the needs test appears in an entirely different, subsequent sentence, embedded in a clause that is prefaced by proscriptive language:

No such authorization shall be granted if the Administrator finds that

...

(ii) California does not need such California standards to meet compelling and extraordinary conditions.

42 U.S.C. § 7543(e)(2)(A)(ii). The “in the aggregate” language appearing in the sentence establishing the protectiveness test is independent of and does not modify the language in the separate sentence establishing the needs test. This follows from the doctrine of last antecedent. Under that doctrine, “a limiting clause or phrase . . . should ordinarily be read as modifying only the noun or phrase that it immediately follows” and not phrases that are more remote. *Barnhart v. Thomas*, 540 U.S. 20, 26 (2003). Here, the term “in the aggregate” applies only to the protectiveness test because the “in the aggregate” language modifies only the immediately following phrase “at least as protective of public health and welfare as applicable federal standards.” The subsequent sentence, which addresses the separate needs test conspicuously omits that term “in the aggregate.” *See U.S. v. Pritchett*, 470 F.2d 455, 459 (1972) (applying doctrine of last antecedent); *see also Rodriguez*, 480 U.S. at 525 (where language included in one subsection of a statute but excluded in another, “it is generally presumed that Congress acts intentionally and purposely in the disparate inclusion or exclusion.”). Accordingly, using the doctrine of last antecedent, the “in the aggregate” language does not apply to the “remote” needs test but only to the

“nearby” protectiveness test. There is no ambiguity on that score. “If a court, *employing traditional tools of statutory construction*, ascertains that Congress had an intention on the precise question at issue, that intention is the law and must be given effect.” *Chevron*, 467 U.S. at 843 n.9 (emphasis added).

This result is confirmed by the fact that the language in the sentence establishing the protectiveness test affirmatively *mandates* that EPA approve the waiver application if California makes the requisite protectiveness finding, while the language in the sentence establishing the needs test expressly *prohibits* EPA from granting a waiver application unless EPA makes the requisite needs finding. Thus, the trigger for the protectiveness test is just the opposite from the trigger for the needs test thereby demonstrating that Congress intended the tests to be distinct from each other.

In fact, the protectiveness test is drafted to broaden the likelihood of granting a waiver, while the needs test is drafted to narrow the likelihood of granting a waiver. That is because Congress engaged in a legislative trade-off in the 1977 CAA amendments. Any particular California standard that was less stringent than its corresponding federal standard could be approved if all the California standards “in the aggregate” were at least as stringent as all the federal standards “in the aggregate.” On the other hand, Congress prohibited EPA from approving any specific standard if California did not have a need for that standard based upon “extraordinary and

compelling conditions” in the state. The two different tests were intended to address different issues, and Congress gave greater authority to EPA to approve waivers under the protectiveness test, but lesser authority to approve waivers under the separate needs test.

The line drawn by Congress is eminently sensible. § 209(e)(2)(A) gives California discretion to propose a portfolio of standards that collectively maximizes overall “protectiveness,” an aim that is entirely compatible with requiring EPA to confirm that each component of that portfolio is actually needed, as required by § 209(e)(2)(A)(ii). This provides California with leeway to enact and enforce a mix of emissions standards that furthers its interests, while ensuring that EPA protects the national interest in the mobility of vehicles against California standards that are not actually needed to deal with compelling and extraordinary conditions in the state. *See Brown & Williamson*, 529 U.S. at 125 (statutes must be implemented as written, bearing in mind the specific language, structure, and purposes of the statute as a whole).

Thus, the statutory text, its context, the structure of the statutory scheme, and the canons of statutory construction all point to the conclusion that the needs test under § 209(e)(2)(A)(ii) requires EPA to determine on a case-by-case basis whether California has a compelling and extraordinary need for the particular standard for

which it is applying. There is no ambiguity on that issue. Accordingly, under *Chevron*, that is the “end of the matter.” 467 U.S. at 842 (1984).

Nevertheless, EPA and CARB argue the use of the plural term “California standards” necessarily implies the needs test applies not to California’s need for the specific standards for which waiver from federal preemption is sought but to California’s need to have its own mobile source program as a whole. The weight of the statutory textual and structural evidence, as well as the rules of construction, shows that EPA and CARB are wrong. First, the standards applicable to most vehicles involve a standard for multiple pollutants (*e.g.*, CO and NO_x, PM_{2.5} and NO_x, etc.), so the use of the plural has no special significance here. *See* 1 U.S.C. § 1 (“words importing the plural include the singular [i]n determining the meaning of any Act of Congress, unless the context indicates otherwise”). Second, this Court already has held the 1977 amendments’ in-the-aggregate test applies only to the standards applicable to each new class of regulated vehicles, not to the entirety of California’s vehicular-emission program, *Ford*, 606 F.2d at 1300-02, otherwise any new California standard could exceed federal levels based on the cumulative stringency of past California standards vis-à-vis past federal standards. Third, to the extent there is any ambiguity in the CAA on the content of the needs test, the legislative history resolves the ambiguity in favor of the California Petitioners, for the reasons set forth in detail in their joint opening brief. *See* Pet’rs’ Br. at 44-52.

Moreover, the agency is not entitled to *Chevron* deference in connection with its interpretation of any ambiguity that may appear in § 209(e)(2)(A)(ii). Here, EPA has not been given congressional authority to substitute the statutory term “standards” with the term “program.” *See City of Arlington*, 133 S. Ct. at 1874. Indeed, EPA is foreclosed from rewriting the statute in that way or any other way. *See Brown & Williamson*, 529 U.S. at 125. Thus, no deference need be given to EPA’s interpretation of § 209(e)(2)(A)(ii). The statutory language itself, as well as the legislative history, shows that the agency’s interpretation is impermissible and “not in accordance with law.” *See* 5 U.S.C. § 706.⁶

⁶ CARB argues EPA’s interpretation should be given deference because it has been consistently applied by EPA over the years. CARB Br. at 15-17. But that is not true. California submitted a waiver request to regulate greenhouse gases from new motor vehicles in 2005, under the Bush Administration. EPA rejected the request on the ground that California did not need that particular emission standard. 73 Fed. Reg. 12156, 12159 (Mar. 6, 2008). Subsequently, under the Obama Administration, EPA reversed itself and approved the waiver request using the “program as a whole” test. Thus, EPA’s interpretation has not been uniform. EPA itself acknowledges these facts, although CARB does not. EPA Br. at 47. Surely no deference should be given to an EPA interpretation simply because it is the *current* interpretation, which is subject to change, depending upon the Administration that happens to occupy the White House at any particular point in time.

III

CALIFORNIA DOES NOT NEED THE NONROAD DIESEL STANDARDS TO ADDRESS “COMPELLING AND EXTRAORDINARY CONDITIONS” IN THE STATE

EPA argues that, even if the California Petitioners accurately interpret § 209(e)(2)(A)(ii), this Court should sustain EPA’s waiver decision because California has a compelling and extraordinary need for the nonroad diesel emissions standards. EPA Br. at 57-59. The argument is without merit.

It is undisputed that there are only two areas in California that are in nonattainment, namely, the South Coast Air Basin and the San Joaquin Valley Air Basin:

The South Coast Air Basin and the San Joaquin Valley Air Basin are in nonattainment for both PM_{2.5} and the 8 hour ozone standard. Significant reductions in NO_x emissions are needed to attain the standards because NO_x leads to formation in the atmosphere of both ozone and PM_{2.5}. Diesel PM emissions reductions are also needed because diesel PM contributes to ambient concentrations of PM_{2.5}. The South Coast and San Joaquin Valley air basins are both required to be in attainment with the PM_{2.5} standard by 2014. The San Joaquin Valley and South Coast Air basins are required to be in attainment of the 8 hour ozone standard by 2023.

78 Fed. Reg. at 58098-58099. CARB agrees that those are the only two nonattainment areas in California. CARB Br. at 3. Referring solely to the San Joaquin Valley and South Coast Air Basins, EPA notes that

it would be necessary only to examine whether the identified ‘compelling and extraordinary conditions’ in California are giving rise to an *air quality* problem that CARB seeks to address with the Fleet Requirements. . . . EPA believes that to the extent that a review of the need for the Fleet Requirements (as opposed to CARB’s nonroad program) is required, that CARB has reasonably demonstrated such need *due to its obligation to comply with federal law*.

78 Fed. Reg. at 58104 (JA-1777) (emphasis added).

The “air quality problem,” *i.e.*, nonattainment of federal ambient air quality standards, applies only to the two identified air basins and not to any other parts of the state. Even under EPA’s bare-bones approach, at most there may be a “compelling and extraordinary” need for the nonroad diesel standards in the San Joaquin Valley and South Coast Air Basins but not in the remainder of the state. Accordingly, EPA’s grant of a *statewide* waiver is not supported by the record and is, therefore, impermissible.

EPA has admitted it has not developed any other criteria by which to determine whether California needs the nonroad diesel standards: [I]n light of the lack of criteria by which to judge such need . . . even if EPA were to apply the alternative interpretation proposed by commenters, the agency would be unable to make an affirmative finding under section 209(e)(2)(A)(ii). 78 Fed. Reg. at 58103. (JA-1776). Thus, the only reason EPA gave to support its approval of the statewide waiver is that two air basins in the state have not attained certain national ambient air quality standards. Consequently, there has not been a showing that California has a

compelling and extraordinary need for the statewide standards. That is fatal to the waiver. *Motor Vehicle Mfrs. Ass'n*, 463 U.S. at 43 (unless agency can articulate a rational connection between the facts found and choices made, the agency action should be vacated).

IV

ARTBA'S CLAIMS ARE JUSTICIABLE

EPA argues ARTBA lacks standing for relief regarding other states' adoption of California standards because ARTBA fails to identify any members. EPA Br. at 25. While constitutional subject-matter jurisdiction may be relevant to transferring ARTBA's other-state claims to the district court,⁷ petitioners do not need separate standing to argue § 307(b)(1) venue issues if they have standing on the merits. ARTBA not only has standing in this Court (Joseph Decl. ¶ 6 (JA-1811)) but also could rely on the California Petitioners' standing (Pet'rs' Br. at 17-18). Indeed, EPA's contrary position on the other-state question injures ARTBA's non-California members *now* in their bargaining position vis-à-vis their states, Joseph Decl. ¶¶ 8-13 (JA-1811-1814), which provides ARTBA with standing and a ripe controversy on the other-state issues. *Clinton v. New York*, 524 U.S. 417, 433 & n.22 (1998) (finding

⁷ If this Court retains and decides these petitions without reaching ARTBA's issues, Fed. R. App. P. 27(a)(2)(B)(i) would allow submitting affidavits on standing and ripeness in the district-court case, separate from the acknowledged case or controversy here.

third-party injury in the denial of a statutory bargaining benefit, without proof of obtaining the ultimate bargain); *Sierra Club v. EPA*, 129 F.3d 137, 139 (D.C. Cir. 1997) (“no doubt” that affected public has standing to challenge EPA policies concerning transportation districts whose *future* actions may *someday* expose that public to statutory harm); *Pub. Citizen v. U.S. Dep’t of Justice*, 491 U.S. 440, 451 (1989) (“appellants *might* gain significant relief if they prevail in their suit [and their] *potential gains* are undoubtedly sufficient to give them standing”) (emphasis added). Alternatively, denying a party’s chosen forum is itself cognizable injury-in-fact, *Int’l Primate Prot. League v. Adm’rs of Tulane Educ. Fund*, 500 U.S. 72, 77 (1991), for which ARTBA has standing. Moreover, if this Court must decide the other-state-adoption issue as part of resolving EPA’s venue-related arguments, that other-state question is properly before this Court. In short, nothing in Article III prevents ARTBA from raising the other-states arguments here.

Finally, EPA’s claim that ARTBA needed to identify members is not only wrong, but *preclusively* wrong. Article III does not require associations to identify members when membership itself establishes injury (*i.e.*, when agency action affects an entire group or industry). *Summers v. Earth Island Inst.*, 555 U.S. 488, 498-99 (2009). Indeed, the same issue was litigated by the same parties in 2009, Brief for Intervenor California Air Resources Bd., *et al.*, at 10-11, *Am. Rd. & Transp. Builders Ass’n v. EPA*, 588 F.3d 1109 (D.C. Cir. 2009) (“*ARTBA II*”) (08-1381), and this Court

held that ARTBA had standing. *ARTBA II*, 588 F.3d at 1111-12. Not naming members does not defeat ARTBA's standing.

CONCLUSION

This Court should transfer this action to the Ninth Circuit or, alternatively as to ARTBA, to the U.S. District Court for the District of Columbia. If it retains the case, this Court should vacate EPA's grant of the waiver application.

Dated: July 16, 2015

Respectfully submitted,

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CERTIFICATE OF COMPLIANCE WITH RULE 32(a)
CERTIFICATE OF COMPLIANCE WITH
TYPE-VOLUME LIMITATION, TYPEFACE
REQUIREMENTS, AND TYPE STYLE REQUIREMENTS.

1. This JOINT REPLY BRIEF OF PETITIONERS DALTON TRUCKING, INC., ET AL., AND AMERICAN ROAD & TRANSPORTATION BUILDERS ASSOCIATION complies with the type-volume limitation of Fed. R. App. P. 32(a)(7)(B) because:

 T It contains 7,997 words excluding the parts of the brief exempted by Fed. R. App. P. 32(a)(7)(b)(iii), or

 It uses a monospaced typeface and contains _____ lines of text, excluding the parts of the brief exempted by Fed. R. App. P. 32(a)(7)(B)(iii).

2. This JOINT REPLY BRIEF OF PETITIONERS DALTON TRUCKING, INC., ET AL., AND AMERICAN ROAD & TRANSPORTATION BUILDERS ASSOCIATION complies with the typeface requirements of Fed. R. App. P. 32(a)(5) and the type style requirements of Fed. R. App. P. 32(a)(6) because:

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DATED: July 16, 2015.

s/M. REED HOPPER

*Attorney for Petitioners,
Dalton Trucking, Inc., et al.*

CERTIFICATE OF SERVICE

I hereby certify that on July 16, 2015, I electronically filed the foregoing with the Clerk of the Court for the United States Court of Appeals for the D. C. Circuit by using the appellate CM/ECF system.

I certify that all participants in the case are registered CM/ECF users and that service will be accomplished by the appellate CM/ECF system.

s/M. REED HOPPER
M. REED HOPPER

To: McCabe, Janet[McCabe.Janet@epa.gov]
From: Dennis, Allison
Sent: Wed 11/4/2015 7:17:47 PM
Subject: OTC
[TalkingPointsv3.docx](#)
[R1 CPP status update.docx](#)
[Signed Ltr to Gina032.pdf](#)
[OTC Exec Session Qs.docx](#)
[OTC Meeting SIP Request aqpd finaldocx.docx](#)
[R3CPP Update 10-28-15.docx](#)

Hi there! I hope you and Joe have had a chance to catch the beautiful weather we are having today. I just wanted to check to make sure you have everything you need for your 8 am call with OTC tomorrow. Also, I attached e-copies of most of the materials provided in the binder, plus one new item, in case you'd like to make edits tonight:

- ☐ Talking Points
- ☐ Executive Session Q&As
- ☐ R1 CPP Status Update-- NEW!
- ☐ R3 CPP Status Update
- ☐ (I'm checking with R2 on their CPP status update
- ☐ Original OTC invite to the Administrator- NEW (I didn't include this in your binder)

Happy to send you electronic copies of the other materials (regional hot topics, attendee list, agenda, etc.) .

Best,

Allison



September 16, 2015

The Honorable Gina McCarthy
U.S. Environmental Protection Agency
William Jefferson Clinton Building
1200 Pennsylvania Avenue, NW
Mail Code 1101A
Washington, DC 20460

Connecticut

Delaware

District of Columbia

Maine

Maryland

Massachusetts

New Hampshire

New Jersey

New York

Pennsylvania

Rhode Island

Vermont

Virginia

David C. Foerter
Executive Director

444 N. Capitol St. NW
Suite 322
Washington, DC 20001
(202) 508-3840
FAX (202) 508-3841
Email: ozone@otcair.org

Dear Administrator McCarthy:

The Ozone Transport Commission (OTC or Commission) and the Mid-Atlantic-Northeast Visibility Union (MANE-VU) are pleased to extend an invitation to you to speak at our Fall Meeting on November 5, 2015 at the Hilton Baltimore Hotel in Baltimore, Maryland. We have tentatively scheduled time for you to speak from 10:00 – 11:00 am, but we would be happy to accommodate a time that is workable for your schedule, and are prepared to adjust other sessions on the agenda as necessary.

We are also holding an Executive Session between the OTC member states and senior EPA managers from 8:00 am to 9:15 am the morning of November 5th, and are hoping you will join us for those discussions.

Given the anticipation of EPA issuing a revised ozone standard and the subsequent implementation of the revised standard, the Commission is very interested in hearing about how far we have come and how far we still need to go to provide the health protection afforded by the ozone standard and the Clean Air Act. As the fall meeting combines ozone transport and regional haze policy issues, the Commission is also interested in EPA's view of where we stand and how to make needed progress in achieving the region's air quality goals. The Commission is also interested in knowing EPA's goals and outlook for the future of the nation's air quality and how the Agency will move forward to continue to protect public health and the environment. We aim to understand how our states can more effectively work with EPA to realize its vision and understand how to connect our work toward a higher level of environmental stewardship and sustainability, to protect communities at risk, and promote the public trust.

A number of critical policy issues continue to face EPA, and the OTC states hope to discuss several of them during the Executive Session. Some of these issues include:

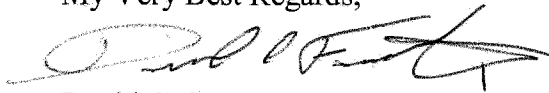
- Near and longer term strategies for ozone transport and broader cooperation to implement these strategies;
- EPA's plans to address mobile sources emissions beyond Tier 3 and the legacy and new fleet of light, medium and heavy-duty vehicles;
- Timely interstate transport and attainment planning under a revised 2015 ozone standard.

- Improving funding for achieving the goals of OTC, and Regional Planning Organizations, including for regional haze.

We know that there are many challenges as well as successes and look forward to continuing to work together to achieve needed air quality results.

Attached please find the draft agenda for this meeting. We appreciate your consideration of our invitation and look forward to a response at your earliest convenience. For more information about OTC or any questions about the OTC/MANE-VU Fall Meeting, please contact me at 202-508-3840 or via email at dfoerter@otcair.org.

My Very Best Regards,

A handwritten signature in black ink, appearing to read 'David C. Foerter', with a stylized flourish at the end.

David C. Foerter
Executive Director, OTC

cc: Janet McCabe, Acting Assistant Administrator EPA OAR

To: McCabe, Janet[McCabe.Janet@epa.gov]
Cc: 'Janet McCabe' [Personal Privacy]
From: Janet McCabe
Sent: Sat 10/31/2015 12:58:06 PM
Subject: Document1
Doc1.docx

OAR Hot List
Week of November 2, 2015

Clean Power Plan: I started this week off in Indiana. On Monday I met with a group of Indiana environmental groups, who are working to figure out how to be meaningfully involved in whatever Indiana does with respect to a plan. I also met with MISO and heard about the work they are doing to provide their 17 states with analysis on how various approaches across the region could work. On Tuesday, I kicked off the Indiana Chamber of Commerce annual environmental meeting. On Wednesday afternoon, Joe attended the Western Interstate Energy Board meeting along with Debbie Jordan and staff from OAP and Regions 8, 9 and 10. They heard from more than a half dozen state air regulators, who presented their current implementation activities to a group of PUC commissioners and reliability authorities. On Thursday, I had a great trip to Atlanta, where I met with the Region 4 Commissioners. I also spoke at the Southeast Efficiency Alliance. Thanks to Beverly Banister and Ken Mitchell for being such great hosts while I worked out of their offices that day.

Next week, Joe is continuing his engagement with FERC/DOE. Sarah Dunham and Kevin Culligan will speak to the CEG companies on Wednesday. And on Friday I'll be speaking at the Nuclear Energy Summit organized by the White House.

Montreal Protocol Meeting of the Parties: We greatly appreciate that you are traveling all the way to Dubai to serve as head of the US delegation for next week's Meeting of the Parties for the Montreal Protocol on Substances that Deplete the Ozone Layer. We'll be hanging on the daily dispatches to hear how it is going.

Heavy-Duty Truck GHG Rule WH Meeting: On Tuesday, the OTAQ team and I, along with NHTSA representatives will meet with Dan Utech and others to update them on comments we have received on the HD GHG proposal, upcoming milestones, etc.

VW Case: Well, you know.... I connected with Mary Nichols on Friday. Stay tuned.

Exceptional Events Proposal: We expect you will have, for signature, our proposed revisions to the 2007 Exceptional Events Rule to address issues raised by stakeholders regarding the need to increase the administrative efficiency of the Exceptional Events criteria and process. The proposal will also announce the availability for public comment of a draft guidance document on how to apply proposed rule revisions to wildfire events that could influence monitored ozone concentrations. Our goal is to finalize this rule before October 1, 2016, when states are required to submit their initial designation recommendations for the revised National Ambient Air Quality Standards (NAAQS) for ozone.

Ferroalloy Petition Responses: By next Friday, I plan to sign responses to two petitions for reconsideration regarding the NESHAP FR for Ferroalloys Production. DOJ has requested an expedited review and signature by November 6 due to the litigation schedule.

Deliberative

Deliberative

Deliberative

Ozone Implementation: I have to brag on OAQPS for a minute. Yesterday we had Early Guidance on the 2015 Ozone Implementation rule—less than a month after finalizing the standard. This is unheard of timeliness, and the result of several years of OAQPS working to improve our process for developing guidances for these updating rules.

Also, our OAR Management Retreat is this Thursday, here at the WJC building. We're happy to have Stan joining us in the early part of the retreat to help us kick off the full day of discussions about navigating all the challenges in the year ahead.

To: Bruce.Scott@ky.gov[Bruce.Scott@ky.gov]; ccomer@idem.in.gov[ccomer@idem.in.gov];
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 david.mears@state.vt.us[david.mears@state.vt.us];
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thomas.l.clarke@wv.gov[thomas.l.clarke@wv.gov]; tommy.wells@dc.gov[tommy.wells@dc.gov]
From: Thornton, Beth A (DEC)
Sent: Fri 10/30/2015 5:06:05 PM
Subject: Response to July 7, 2015 letter re SCOOT discussions
[ResponseLtrFinal.pdf](#)

Please see referenced letter attached.

Beth Thornton

Secretary 2, Division of Air Resources

New York State Department of Environmental Conservation

625 Broadway, Albany, NY 12233-3250

P: (518) 402-8452 | F: (518) 402-9035 | beth.thornton@dec.ny.gov

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**Connecticut Department of Energy and Environmental Protection
Delaware Department of Natural Resources and Environmental Control
Maryland Department of the Environmental
Massachusetts Department of Environmental Protection
New York State Department of Environmental Conservation
Pennsylvania Department of Environmental Protection
Rhode Island Department of Environmental Management
Vermont Department of Environmental Conservation**

October 30, 2015

Craig W. Butler, Director, Ohio Environmental Protection Agency
R. Bruce Scott, Commissioner, Kentucky Department of Environmental Protection
Carol Comer, Commissioner, Indiana Department of Environmental Management
Randy Huffman, Secretary, West Virginia Department of Environmental Protection
Dan Wyant, Director, Michigan Department of Environmental Quality
Don van der Vaart, Secretary, North Carolina Department of Environment & Natural Resources

Re: Section 176A Petition, State Collaborative on Ozone Transport, and Response to the July 7, 2015 Letter

Dear Commissioners:

We write in response to your July 7, 2015 letter referencing ongoing discussions under the State Collaborative on Ozone Transport's (SCOOT) framework, for controlling the transport of ozone pollution in the Eastern United States.

Last November, states participating in SCOOT commenced an effort to obtain the operation of installed nitrogen oxide (NOx) controls in order to reduce ozone levels across the northeastern United States. The SCOOT participants began with a voluntary approach in the summer of 2015 because sufficient time did not exist for most states to develop a mandatory mechanism. By lowering ozone levels during 2015 through this initiative, all of our states would benefit from reduced ozone transport and potentially realize more beneficial attainment designations under the revised ozone standard that was released on October 1, 2015.

It was our understanding that there was broad agreement that pollution control optimization would continue to be applied in subsequent years and be a key component in efforts to establish and subsequently to satisfy Good Neighbor State Implementation Plan (SIP) obligations. In your July 7th letter, however, you have suggested that the continued operation of controls on a voluntary basis in 2016 would be sufficient to meet our collective goals. Although we recognize that substantial progress has been made in several states where most sources appear to be running their controls optimally, performance of other sources is falling short of our expectations.

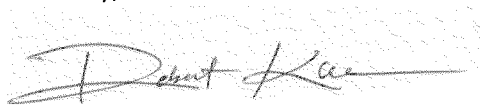
According to preliminary data posted by the U.S. Environmental Protection Agency's (EPA) Clean Air Markets Division (CAMD) for the second quarter of 2015, the owners of many sources appear not to have been operating their NOx emissions controls at all, or not in an optimal manner, despite requests from their respective state regulating agencies that they voluntarily operate their existing controls. The states that participated in the August 30 meeting in Newport agreed to further evaluate in September the apparent underperformance of sources in their state and seek to understand why other sources achieved much better results. The October 23 call of the Air Directors provided little new information on the subject and we therefore emphasize the need for all participating states to be prepared to fully discuss the results of their evaluation at the next full SCOOT call on November 12.

Although the SCOOT effort has achieved some progress, we are not prepared to dismiss the Section 176A petition at this time. In our view, the refusal of some sources to operate their controls, along with the apparent underperformance of others, reaffirms the need to make the sources' obligations to operate existing controls enforceable. Furthermore, the downwind states that are designated nonattainment must base their attainment demonstrations on enforceable requirements and will not be able to rely on unenforceable verbal commitments in developing their ozone SIPs. Accordingly, we remain convinced that without a legal mechanism to require operation and optimization of NOx controls in 2016, we will again fail to achieve the necessary results.

We look forward to further discussions in November to understand the apparent underperformance of sources and determine if a path forward can be agreed upon that will result in federally enforceable requirements to run existing controls in the 2016 ozone season. If we are unable to make substantial progress on a process and schedule for obtaining enforceable requirements to operate existing controls, we will need to pursue an EPA decision on the Section 176A Petition. Moreover, we recognize that individual states may decide to move forward with other Clean Air Act tools to ensure healthy air in our states.

We look forward to a productive meeting in November. Please contact any of us if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert Klee", written over a light gray grid background.

Robert Klee, Commissioner
Connecticut Department of Energy and Environmental Protection

A handwritten signature in black ink, appearing to read "David Small", written over a light gray grid background.

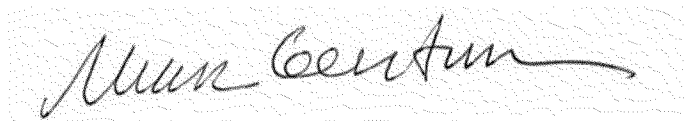
David Small, Secretary
Delaware Department of Natural Resources and Environmental Control



Benjamin Grumbles, Secretary
Maryland Department of the Environment



Martin Suuberg, Commissioner
Massachusetts Department of Environmental Protection



Marc Gerstman, Acting Commissioner
New York State Department of Environmental Conservation



John Quigley, Secretary
Pennsylvania Department of Environmental Protection



Janet Coit, Director
Rhode Island Department of Environmental Management



Alyssa Schuren, Commissioner
Vermont Department of Environmental Conservation

cc: Gina McCarthy, Administrator, U.S. Environmental Protection Agency
Janet McCabe, Office of Air and Radiation, U.S. Environmental Protection Agency
David Paylor, Virginia Department of Environmental Quality
Lisa Bonnett, Illinois Environmental Protection Agency
Bob Martineau, Tennessee Department of Environment and Conservation
Tommy Wells, District of Columbia Department of the Environment
Avery Day, Maine Department of Environmental Protection
Bob Martin, New Jersey Department of Environmental Protection
Lance LeFleur, Alabama Department of Environmental Management
Judson Turner, Georgia Department of Natural Resources
Chuck Gipp, Iowa Department of Natural Resources
John Stine, Minnesota Pollution Control Agency
Sara Parker Pauley, Missouri Department of Natural Resources
Jim Macy, Nebraska Department of Environmental Quality
Catherine E. Heigel, South Carolina Department of Health and Environmental Control
Cathy Stepp, Wisconsin Department of Natural Resources
Dave Foerter, Ozone Transport Commission
Rob Kaleel, Lake Michigan Air Directors Consortium
John Hornback, Southeastern States Air Resource Managers
Theresa Pella, Central States Air Resource Agencies
Susan Wierman, Mid-Atlantic Air Regional Air Management Association

To: McCabe, Janet[McCabe.Janet@epa.gov]
Cc: Foscue, Kenny[Kenny.Foscue@ct.gov];
daniel.tranter@state.mn.us[daniel.tranter@state.mn.us]
From: Heyman, Marian
Sent: Mon 10/26/2015 2:55:12 PM
Subject: Follow up from Environmental Law Institute IEQ Officials Workshop about funding opportunities for IEQ
Proposal for a IEQ Cooperative Agreement Prog 10-26-15.doc

Dear Janet,

Thank you for speaking about your activities at our recent Environmental Law Institute IEQ Officials workshop on October 9-10 in Washington, D.C.

The health and comfort of building occupants are impacted on a daily basis by contamination from chemical, biological and physical agents inside buildings. This negative impact on the indoor environment affects people in their homes, schools, workplaces, and everywhere else that they spend time indoors. There have been numerous studies demonstrating associations between disease, emotional well-being, and declining performance and productivity with poor indoor environmental quality. Given these facts, indoor environmental quality should be at the top of our national, state, and local public health priorities.

During your presentation, you said that EPA was seeking input about where their dollars could be best spent. I had mentioned that while it is wonderful that EPA funds state programs to address specific things like asthma, radon, and lead, it is also critical for states to have additional personnel who can respond to questions about a myriad of topics that affect people in their indoor environments. Staff needs to be flexible in order to respond to routine questions like those about moisture, mold, and emissions from cleaning chemicals, but also new and/or emergent topics like formaldehyde exposures from laminate flooring, exposures from Chinese Drywall emissions, spray polyurethane foam insulation, and more recently, indoor environmental concerns related to microbial agents like Legionella, Ebola, and Enterovirus D68. In short, states could really use assistance from EPA in funding IEQ staff that can jump in and respond to the public about both routine and emergent IEQ topics as needed.

I am attaching a draft proposal for an indoor environmental quality state cooperative agreement grant program for state health departments. This was developed by some of my IEQ colleagues. As you know, state health departments (and their partners) are the lead state agency in addressing IEQ issues in schools, homes, workplaces and institutions, but rarely if ever have adequate resources. State governments cannot be relied upon to provide adequate resources.

The attached proposal outlines IEQ problems, discusses limited existing resources, describes overarching and specific strategies, lists collaborative models for IEQ Programmatic interventions, and proposes some budget guidelines for state proposals. The emphasis is on collaboration, utilizing existing effective programs, and promoting outcome-based programmatic interventions.

I sincerely hope that you will take the time to consider this proposal and discuss it with your colleagues.

Appreciatively,

Marian

Marian L. Heyman, MPH

Coordinator, Indoor Environmental Quality Unit

Environmental & Occupational Health Assessment Program

Connecticut Department of Public Health

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Proposal for an Indoor Environmental Quality State Cooperative Agreement Grant Program

I. Introduction:

The purpose of this document is to generate discussion about the need for a more comprehensive approach to addressing indoor environmental quality (IEQ) problems utilizing a public health approach. Indoor environmental quality can be defined as the chemical and biological contaminants inside a building (1).

- Chemical contaminants include chemical constituents of tobacco smoke, radon, formaldehyde, carbon monoxide, nitrogen dioxide, pesticides, volatile organic chemicals (products, building materials, furnishings, hobbies, etc), mercury, and infiltrating outdoor pollution (ozone, VOCs, etc).
- Physical contaminants include asbestos, lead, particulate constituents of tobacco smoke, infiltrating outdoor pollution (particulate matter), and indoor-generated fine and ultrafine particulates (combustion equipment, chemical processes, etc.)
- Biological contaminants include mold, bacterial endotoxins, allergens (dust mites, animal dander, cockroach, rodents), and infectious agents such as certain fungi (Histoplasma), bacteria (Legionella) and viruses (cold, flu, RSV, Hanta virus).

A broader definition of IEQ (drinking water, noise, lighting, fire risks, physical hazards such as trips/falls, fire, etc) are not be covered by this proposed funding mechanism because other funding sources already exist.

It is proposed that the EPA, preferably in conjunction and/or collaboration with other federal agencies such as CDC, develop a national Cooperative Agreement program to fund state health departments to build capacity to more effectively respond to this high priority, yet under-resourced environmental public health issue. Further, such a funding program can be designed around proven effective interventions with evidence-based outcomes. This document was developed from the perspective of state health department based staff working on a day-to-day basis to address IEQ problems with generally inadequate resources, along with input from federal staff and others providing support for those efforts.

One federal law serves to make this proposal timely. The “High Performance Green Buildings Act of 2007” (S 506, Lautenberg, et al) which the Senate and House added to the Energy Act. S 506 establishes a new federal office of green buildings in the General Services Administration to coordinate the work of the federal agencies on green buildings and authorizes EPA to do new work on healthy school environments. Specifically, Subtitle E, Healthy High Performance Schools (HHPS), directs EPA for the first time to promote healthy school environments by working with state agencies, by creating federal guidelines for the siting of schools, and by developing model guidelines for children’s environmental health in schools. The Act also provides for funding. In Section 501, grants for healthy school environments are further specified:

“(a) In General- The Administrator, in consultation with the Secretary of Education, may provide grants to States for use in-- (1) providing technical assistance for programs of the Environmental Protection Agency (including the Tools for Schools Program and the

Healthy School Environmental Assessment Tool) to schools for use in addressing environmental issues...

It should also be pointed out that a more coordinated and comprehensive response to IEQ problems is aligned with the Center for Disease Control and Promotion's (CDC) Futures Initiatives. Addressing IEQ fits in with the federal agency's overarching goals of "Health promotion and prevention of disease, injury, and disability," and more specifically "Healthy Places." "Healthy Places" encompasses public health goals around Healthy Schools ("promote safe, healthy, and accessible physical environments in schools"), Healthy Homes ("protect and promote health through safe and healthy home environments") and Healthy Workplaces ("prevent work-related deaths, injuries, and illnesses").

II. Problem:

a.

IEQ as an Important Environmental Health Issue: Indoor environmental quality is ranked by the US EPA and its Scientific Board as one of the top five environmental health risks facing the American people. Americans spend about 90 percent of their time indoors, where concentrations of pollutants are often much higher than those outside. EPA estimates that indoor exposure to air pollutants can be 2-5 times — and occasionally more than 100 times — higher than outdoor levels (1). In fact, there has been a growing concern regarding health problems linked to poor IEQ in homes and private and buildings, including school facilities. A substantial number of people are potentially exposed to IEQ problems, in particular, children. In fact, most of pollutant exposure comes from non-regulated sources within indoor environments such as homes, offices, and schools (2). The largest of these sources are volatile organic compounds (VOCs) from common consumer products and building materials. These sources are virtually untouched by existing laws because the present regulatory approach focuses on outdoor emissions rather than exposures, and no federal agency or law specifically regulates indoor environments, where most of the public's exposure occurs.

Health problems caused by poor IEQ are costly. Cost-benefit estimates by the EPA suggest the net available costs associated with indoor air pollution amount to \$150-\$200 billion, including avoidable deaths, lost productivity, and avoidable respiratory diseases. The cost of reducing blood lead levels has been estimated at \$240 million per year, while the societal benefits (increase in IQ) was estimated at over \$110 billion per year [3]. Table I at the end of the document includes additional information on the burden of poor IEQ.

However, there is evidence that IEQ health problems can be addressed by making building improvements. The Carnegie Mellon building performance program identified 17 substantial studies that document the relationship between improved air quality and health. The health impacts include asthma, flu, sick building syndrome, respiratory problems, and headaches. These 17 separate studies all found positive health impacts (i.e., reduction in reported prevalence of symptoms) ranging from

13.5% up to 87% improvement, with average improvement of 41% (4).

- b. **IEQ is a Health Equity Issue:** Homes and other buildings that are poorly constructed or maintained can have a significant impact on IEQ and health and safety. Low-income populations and communities of color suffer disproportionately from IEQ concerns (MDH 2012). Risk factors associated with poor indoor environments increased risk of illness include age of housing, poverty, geographic location, age of residents, race and ethnicity (MDH 2012). Asthma exacerbation, childhood lead exposure, radon exposure, and unintentional injuries are four examples of significant IEQ issues associated that disproportionately impact low income and communities of color.
- a. **Lack of Regulatory Oversight:** EPA has developed air quality standards for the outdoor air, and each state must develop enforceable plans and strategies to achieve these standards. These standards have been successful in reduced outdoor emissions. However, we need to reduce total exposures to pollutants in order to reduce major health risks that remain (5).

There are no similar enforceable government standards for indoor air quality in schools, workplaces or homes. This includes the absence of enforceable federal OSHA standards for IEQ, except for specific contaminant like lead or asbestos. It is important to acknowledge that of all the federal laws that address human exposure, current environmental regulations offer limited protection against many primary sources of exposure that endanger human health. Major unregulated indoor exposure sources include volatile organic compounds (VOCs) from common consumer products and building materials. These sources are virtually untouched by existing laws because the present regulatory approach focuses on outdoor emissions rather than exposures, and no federal agency or law specifically regulates indoor environments, where most of the public's exposure occurs. We need to focus on exposure (indoor) as a means to protect human health.

There are many useful guidelines that have been published in recent years, but are largely unused by state agencies due to limited resources. Many states have performance-based standards, but lack monitoring and enforcement resources. The American Society of Heating and Refrigerating Engineers (ASHRAE) Standard 62, "Ventilation for Acceptable Indoor Air Quality" has been widely used throughout the country as guidance for state and local building departments and design engineers. The Environmental Law Institute has published a variety of reports summarizing state laws and best practices, including a report describing that there are 26 states in the U.S. that have enacted one or more school-related indoor air quality regulation(s) (6). The National Center for Healthy Housing recently published standards that provide an excellent framework for various benchmarks to create healthy homes (<http://www.nchh.org/policy/nationalhealthyhousingstandard.aspx>). The USEPA continues to publish excellent resources such as guidelines for states to develop school environmental health program and for school siting and energy retrofits.

- b. **School IEQ:** Approximately 20% of the U.S. population occupies school buildings daily – over 53 million students and 7 million staff. Schools face many environmental health and safety issues: poor indoor air quality, chemicals (mercury, laboratory chemicals, cleaners, etc), and occasionally, pollutants from previous uses of a school site. In fact, GAO reports that 50% of U.S. schools report at least one environmental problem (7). These exposures have important public health implications. For example, there are 14 million lost school days each year due to asthma-related absences, many due to asthma triggers found in schools. Allergies account for another 2 million lost school days (8). Furthermore, the National Institute of Occupational Safety and Health (NIOSH) identifies adult onset asthma as the leading health hazard for teachers (9). Addressing asthma and allergy triggers in schools is an important intervention in the overall effort to combat the asthma epidemic. School IEQ problems have had a measured impact on student health, academic performance, and attendance.
- c. **IEQ in the Workplace:** IEQ is also a substantial issue in office workplace settings. Fisk and Rosenfield estimate potential annual savings and productivity gains of \$6 billion to \$19 billion from reduced respiratory disease; \$1 billion to \$4 billion from reduced allergies and asthma, \$10 billion to \$20 billion from reduced sick building syndrome symptoms, and \$12 billion to \$125 billion from direct improvements in worker performance that are unrelated to health that would result from improved IEQ (10).
- d. **Residential IEQ:** Homes generally contain multiple sources of IEQ problems: household chemicals (VOCs), radon, mold and other biological pollutants, environmental tobacco smoke, and other contaminants, all exacerbated by inadequate ventilation. Based on the available surveys, approximately half of U.S. homes have visible evidence of a dampness problem or mold contamination (11). With greater knowledge of the connection between asthma and IEQ, there is a marked increase in interest about residential IEQ. Almost 22 million people reported to have asthma in the U.S., approximately 4.6 (range: 2.7-6.3) million cases were estimated to be attributable to dampness and mold exposure in the home (Mudarri,). This interest has been further driven by extensive media coverage of mold. Low and moderate-income residents in rental properties and public housing may have increased exposures, due to deferred maintenance and neglect by landlords. In addition, lower income tenants are more likely to have higher rates of asthma and other chronic respiratory disease.
- e. **Vapor Intrusion:** Over the past twenty years vapor intrusion has been the subject of increased scientific discussion and research. A national consensus on methods used to assess this exposure potential was not reached until 2002. Many residential and commercial structures near sources of groundwater contamination are being re-evaluated for vapor intrusion potential. This exposure pathway must be an integral part of an assessment of indoor air quality.

III. Government Resources:

- a. **Lack of Federal Resources:** Even though there is substantial evidence – and recognition - that IEQ is an important environmental public health area, federal and state resources are inadequate and fragmented. The President’s budget for Outdoor Air programs in 2007 was over \$628 million. In contrast, the budget for Indoor Air programs was approximately \$48 million (12). This is less than one percent of ambient air program funding. It is recognized that a principal reason for this lack of resources is the absence of federal IEQ standards, and that resources have been directed toward environmental problems with regulatory mandates. However, this is not a rational or efficient use of resources if the priority is to develop and implement public health interventions with evidence-based health outcomes that address high priority environmental public health issues. Federal funding in the form of grants are short-lived (1-2 years) and intermittent, resulting in projects rather than sustained activity.
- b. **Lack of State and Local Resources:** This lack of resources is particularly true on the state level. In a summary report on a survey of program officials from state, tribal and local indoor air quality (IAQ) programs, 27 of the 28 respondents reported limited funding and resources as a principal obstacle to developing and implementing IAQ initiatives (13). State health departments across the country vary as to IEQ funding resources and subsequent extent of IEQ initiatives. An important state health department role is to support and mobilize local health department response. Asbestos and Radon Cooperative Programs are the only present state funding programs (of any effective level) to address IEQ problems, but are limited and threatened.

IV. Overarching Strategy: Given that IEQ is an important public health issue, and that there are presently inadequate resources to address it, a more comprehensive strategy should be developed and implemented. It is proposed that the most efficient and comprehensive strategy would be to create a federally funded Cooperative Agreement Program for state health departments. The principal goal is to provide state health departments with adequate funding to be able to develop interventions that would improve IEQ in schools, homes and workplaces. This program would be developed and Request for Proposals offered based on several important concepts:

Children/Sensitive Populations First Priority: IEQ programs that target children and other sensitive populations would be the first priority. This would include schools, daycare facilities, senior housing and home environments. Strategies that link to ongoing asthma efforts would be encouraged.

Priority Given to Prevention Oriented, Intervention-Based Programs: As IEQ problems are essentially public health-related; the emphasis of this funding program should give priority to intervention-based activities, meaning those that seek to directly change the conditions that cause IEQ health problems. This could include providing technical assistance, such as education and training, and evaluation support. Support should be given so that states can provide technical assistance to local municipalities and school districts, but

there should not be an emphasis on funding for IEQ sampling. The reasoning here is that without contaminant based standards, responses that rely on sampling are problematic.

States with IEQ Cooperative Agreement to Link with other IEQ Related Programs for a Multi-Media Approach: State health departments receiving IEQ funding would be expected to link with existing federally funded programs such as Asbestos, Radon, Lead, Asthma and CDC's Environmental Public Health Tracking Cooperative Agreement Program. Examples would be school IEQ activities that include asbestos, radon, and asthma education as part of Tools for Schools implementation, and utilizing health outcome data generated from indoor environmental changes as part of Environmental Tracking systems.

Programs Involving Inter-Agency Collaborative Interventions Are Encouraged: Adequately addressing indoor environmental quality issues is a major endeavor. IEQ problems are generally multi-faceted and often involve many interests, agencies and organizations. Collaborative programs, like the one described below, can be the most effective strategy to address IEQ.

Pollution Prevention: Programs that encourage a reduction in the use of toxic chemicals should be encouraged. Pollution prevention (P2) is reducing or eliminating waste at the source by modifying production processes, promoting the use of non-toxic or less-toxic substances, implementing conservation techniques, and re-using materials rather than putting them into the waste stream. In indoor environments, examples include: reducing the need for pesticides, implementing the use of green cleaning protocols, and elimination or reduction of the use of VOCs.

Programs and Initiatives that Link Energy Issues (particularly conservation), High Performance Buildings and Indoor Environmental Quality are Encouraged: With the growing concern about energy sources, conservation and global warming, there are growing pressures and incentives to address building energy issues. Historically, there was a trade-off between having adequate fresh air and the cost to heat this air. Advances in technology allow increases in fresh air without substantial higher heating costs. However, in many buildings such as schools, these technologies might not be in place. The new energy crisis with rising fuel costs may cause building managers to redirect scarce funds away from maintenance to cover fuel costs, and in some instances, cut back on needed fresh air, as in the 1970's. Programs should be developed to address these problems, including education of building facilities directors and occupants about conservation and new available energy technologies, including high performance buildings.

Evidence-Based Evaluation Efforts: An important consideration for providing funding and evaluating progress will be the development and implementation of evaluation strategies that seek to show evidence-based impacts and outcomes. Outcomes can include measured environmental improvements and positive health outcomes that can be related to IEQ interventions. Criteria for evidence-based evaluation may include:

- Documented environmental improvements Improved health outcomes
- Cost savings
- Academic and workplace performance

- Other (improved communication, public relations, etc)

Bolster and Secure Hazard-specific Funding:

Asbestos and Radon Cooperative Programs are the only present ongoing state funding programs to address IEQ problems. They are limited and inadequate to address broader IEQ problems because radon funding is quite small, at about \$200,000 – 350,000 for those states that receive the funding (many state do not have radon programs). In addition, the radon funding has been eliminated in successive federal budgets since 2012 and then reinstated. This uncertainty has undermined progress. State health departments, as the lead environmental health agency, should have adequate resources to address the range of IEQ issues. In additional, specific hazards should receive special attention, such as radon and asbestos. Radon and asbestos funding should be secured long term and. Radon and asbestos programs can also conduct IEQ education, research and outreach activities, while focusing on their respective hazards, thereby serving a critical complementary role to the overarching IEQ programmatic activities.

V. Utilizing EPA’s School-Related programs as Models for IAQ Programmatic Interventions

It is recommended that an IEQ Cooperative Agreement funding program mandate school (and pre-school) based IEQ activities as a principal area of work. As noted above, preventing children’s environmental exposures is a principal priority. EPA has developed a number of efficacious programs to address school IAQ problems, described below. However, few states have programs that conduct education, outreach, and research regarding school environmental health. States that do have programs are typically limited in nature and rely on intermittent low levels of funding which stalls momentum. As a result, the EPA resources are largely underutilized. In addition, initiatives should incorporate recent federal and state laws that promote and mandate high performance buildings, including schools.

EPA’s Tools for Schools IAQ Program: The Tools for Schools (TfS) program is the “flagship” program that utilizes a team-based approach to assessing IEQ problems and developing remediation recommendations to improve school conditions. A school-based team of administrators, teachers, maintenance staff, school nurses, parents, and sometimes students investigates and prioritizes indoor air hazards, and short and long-term strategies are developed to solve IAQ problems. A “tool” kit of materials assists the teams in this process. At this point, Tools for Schools is generally implemented on a district-wide basis, and school administrations are encouraged to develop ongoing IEQ management plans.

This program was developed out of the need to overcome two important challenges to responding to school IEQ problems. As mentioned above, there are no federal or state contaminant-based indoor air standards available to provide a traditional regulatory response to IEQ problems in schools. In addition, most school districts face budget issues that have

generally made building maintenance and replacement a lower priority. Given these 2 major limitations, the Tools for Schools strategy is a pragmatic, proactive and collaborative effort to prioritize and respond to school IEQ problems effectively with existing resources. The centerpiece of this strategy is the development, training and support of the school-based teams. The teams represent different aspects of the school community working together, and provide an ongoing mechanism to assess problems and facilitate a response. These teams also provide a needed educational role to all building staff that can mobilize a building wide response to IEQ problems, including occupant-caused problems. These TfS building teams –when sustained - are more likely to have a greater impact on IEQ improvements than an occasional visit by an IAQ consultant.

EPA's Tools for Schools program can be a "platform" to facilitate the implementation of other IEQ programs and initiatives. These may include diesel bus fumes reduction, pesticide use reduction and integrated pest management, laboratory cleanout programs and green cleaning protocols. Ongoing active TfS building teams are able to facilitate the implementation of these programs.

EPA has been able to document positive outcomes nationally from districts utilizing the Tools for Schools program.

Healthy SEAT: EPA has developed and distributed Healthy SEAT, a web-based software tool to help school districts evaluate and manage their school facilities for key environmental, safety and health issues. The *Healthy School Environments Assessment Tool* (HealthySEATv2) is designed to be customized and used by district-level staff to conduct voluntary self-assessments of their school (and other) facilities and to track and manage information on environmental conditions school by school. Examples of school environmental hazards potentially tracked include chemical releases, pesticide exposures, flaking lead paint, mold, and other indoor air quality problems, and damaged asbestos-containing building materials. The program includes critical elements of regulatory and voluntary programs for schools, as well as web links to more detailed information. (Available at <http://www.epa.gov/schools/healthyseat/index.html>)

IAQ Design Tools for Schools: IAQ Design Tools for Schools provides both detailed guidance as well as links to other information resources to help design new schools as well as repair, renovate and maintain existing facilities. Though its primary focus is on indoor air quality, it is also intended to encourage school districts to embrace the concept of designing High Performance Schools, an integrated, "whole building" approach to addressing a myriad of important – and sometimes competing – priorities, such as energy efficiency, indoor air quality, day-lighting, materials efficiency, and safety, and doing so in the context of tight budgets and limited staff (Available at [ww.epa.gov/schools/guidelinestools/healthySEAT/](http://www.epa.gov/schools/guidelinestools/healthySEAT/)).

School Siting Guidelines: EPA's voluntary school siting guidelines can help local school districts (local education agencies or LEAs) and community members evaluate environmental factors to make the best possible school siting decisions. (Available at <http://www.epa.gov/schools/guidelinestools/siting/>)

State School Environmental Health Guidelines: EPA’s “Voluntary Guidelines for States: Development and Implementation of a School Environmental Health Program” can help states establish and sustain environmental health programs for K-12 schools. The guidelines present recommendations, case studies, and resources that will help states build or enhance an existing program (Available at <http://www.epa.gov/schools/guidelinestools/ehguide/>).

EPA’s Energy Savings Plus Health: Indoor Air Quality Guidelines for School Building Upgrades: This document and accompanying resources seek to “protect and improve indoor air quality (IAQ) in schools during building upgrades, particularly energy efficiency upgrades and building renovation activities.” These guidelines work to link IEQ and energy conservation/clean energy alternatives, and provide detailed guidance in planning and implementing energy efficiency projects, while addressing IEQ concerns.

VI. Collaborative Models for Implementing IEQ Programmatic Interventions

Given the extent of IEQ problems, and the lack of resources to address them, it is important to support and fund programs that develop and utilize interagency/organizational collaboration strategies. Nationally, there are several good examples. Two are presented here.

A. Connecticut Multi-agency Consortium on School IEQ: In Connecticut, a statewide collaboration of over 20 agencies and organizations has successfully implemented the Tools for Schools program in a large majority of CT school districts. Like many states, Connecticut has a hodge-podge of agencies and organizations that have some responsibility for school IAQ, but are hampered by a lack of regulatory power and resources. In 1999 several agencies and organizations developed the idea of pooling resources and conducting a coordinated response. The concept was to develop a team of professionals from various agencies and disciplines that would promote TfS, develop a training program for TfS school committees, and provide ongoing technical assistance. The team or consortium – the Connecticut School Indoor Environment Resource Team (CSIERT) now includes 24 agencies and organizations, including four state agencies, the teachers and principals unions, several statewide administrators associations, two academic-based occupational/environmental medicine programs and other organizations. (Available at http://www.ct.gov/dph/LIB/dph/Environmental_Health/EOHA/pdf/schoolteam.pdf) The consortium has implemented the program in over 700 schools in Connecticut. (Available at http://www.ct.gov/dph/LIB/dph/Environmental_Health/EOHA/pdf/tfs_map.pdf) In addition, the consortium has spun off a specific project to design a specialized TfS program for technical high schools and is supporting efforts to encourage and assist CT school districts to implement green cleaning protocols.

The consortium provides the following services:

- Outreach and education to promote TfS in school systems.
- A two session training program to assist school districts to implement the program. The training program utilizes a participation/empowerment workshop model.
- Additional training services to assist school districts to sustain their TfS program

- Ongoing consultation with Tools for Schools committees to set priorities and address specific technical questions.

The success of the consortium is attributed to five principal components:

- **An active group of statewide school stakeholder organizations and agencies working together to promote and assist implementation of the program:** The consortium is made of both school-based organizations and health-based agencies that bring skills, knowledge and contacts to able to successfully implement and support TfS on a large scale.
- **A mandatory district pre-training "buy-in" presentation:** Before CSIERT will agree to assist school districts to implement TfS; a mandatory "buy-in" presentation to all school district administrators (including all principals) is conducted.
- **An empowerment model training program that is regularly evaluated:** A 2-part five-hour training program mentioned above utilizes a hands-on, empowerment workshop model that makes use of participatory training techniques.
- **An active strategy to assist school districts to sustain their TfS program:** This includes outreach to district TfS contacts, a "Refresher" workshop, specialized training for custodial and facilities staff, and regional "information-sharing" meetings of district TfS team members and district coordinators.
- **Developing a more comprehensive Indoor Environment Quality approach:** The consortium and its training program have integrated other school IEQ issues, such as integrated pest management (IPM), radon, laboratory chemical clean-outs, implementing green cleaning protocols, and educating schools about high performance (green) schools, including both new and renovation projects.

This model has been able to document extensive successes. As noted above, a large majority of Connecticut school districts have implemented the program, and a number of school districts have been shown to have actively maintained their program. A 2003 survey of TfS programs showed that a majority of schools had successfully utilized the program to find and correct IEQ problems (14). Appendix X presents a number of districts that documented positive health outcomes. The model has been presented to other New England states to encourage its adoption.

This model can be duplicated in other states, particularly with directed funding from the federal government. Utilizing an interagency collaborative model is a realistic and cost-effective strategy to make it feasible to implement an IEQ program in a large majority of school facilities on a national basis. This model could be implemented in other IEQ settings such as child care centers and workplaces.

B. Healthy Homes Initiative: Boston Healthy Public Housing Initiative: In order to address IEQ issues in homes, several states and cities have launched "healthy homes

initiatives” – comprehensive efforts to undertake a holistic approach to addressing a broad range of housing deficiencies and hazards associated with unhealthy and unsafe homes. These initiatives generally seek to address asthma-related triggers. This includes indoor environment quality problems. The Healthy Public Housing Initiative (HPHI) is a multi-year program to improve the health of Boston public housing residents, especially children with asthma. “The project goals were to understand current home environmental conditions in the Boston Housing Authority (BHA) developments, to implement interventions that improve environmental conditions related to health, especially asthma; to measure the health and quality of life impacts of those interventions on children and caregivers; and to empower residents through training and employment as Community Health Advocates” (Project fact sheet available at <http://www.hsph.harvard.edu/hphi>).

The project consisted of several key components:

- An environmental assessment survey of 238 households in Boston housing projects
- Health and housing interventions targeting 60 asthmatic children. Interventions included air cleaning, new mattresses, commercial cleaning, low-toxicity pest control applications (gels, baits and traps), and family pest control education and support for improved food storage and waste management.
- Pre-and post-intervention health assessments of asthmatic children in participating households. Assessment tools include quality of life questionnaires, monthly calendars, and respiratory measurements.
- Facilitating resident empowerment through training, employment and engagement in analysis. Public housing residents were trained to conduct surveys and unit inspections, and to collect environmental and health data.

According to the final report submitted to HUD (15), The Healthy Public Housing Initiative was successful in developing and maintaining a partnership of academia, city agencies, public housing resident organizations and housing and energy experts that was in turn able to develop and conduct a public housing environmental assessment, train and utilize public housing residents to be community health advocates, train and put in place an Integrated Pest Management educator job program.

Both of these programs are examples of successful prevention-oriented, intervention-based programs that utilize a collaborative strategy to address IEQ problems. These types of education and mitigation programs need to be implemented across states not just limited to specific urban pockets across the US. State agencies are key entities to coordinate and implement healthy homes education, outreach, and implementation programs across the entire state and not just in high population counties that have the staffing capacity to perform this work. There are no comprehensive state programs for healthy homes (with the possible exception of Rhode Island). State environmental health programs are best positioned to serve the role of implementing education, outreach, mitigation, and collaboration functions across broader regions. While federal and local governments play pivotal roles in healthy indoor environments, state programs should also be involved, to

bridge the gap between the federal and local agencies.

VII. Potential Components of an IEQ Cooperative Agreement Program Request for Proposal:

(This section provides a general outline for a federal IEQ Request for Proposal may contain – program examples, evaluation requirements, etc.)

School IEQ

1. Tools for Schools: Recipients of IEQ funding will be expected to develop statewide strategies to facilitate implementation of the Tools for Schools program in all public schools. States would be encouraged to develop comprehensive multi-agency efforts.

Suggested Activities:

- Assess extent of school IEQ programs
 - Create and maintain a Web site to provide access to relevant information, activities and resources
 - Conduct outreach to state school and health agencies and stakeholder organizations
 - Develop and implement IEQ training program promoting/implementing EPA's Tools for Schools program
 - Establish and maintain technical assistance capacity to assist school districts
 - Focus on hazards of regional or local concern, for example, radon, sun protection, legacy chemicals (PCBs, asbestos, lead)
 - Promote Tools for Schools, Healthy SEAT, and other EPA guidance documents and resources
 - Promote and coordinate efforts to link healthy IEQ activities and effective energy conservation efforts in school districts
 - Encourage larger school districts to establish paid positions to coordinate IEQ and energy conservation activities
2. Chemical Cleanout programs: State health departments will work with state environmental protection departments to develop and implement school chemical cleanout initiatives

Suggested Activities:

- Survey public and private school laboratory inventories to assess extent of dangerous chemicals
- Develop comprehensive school chemical cleanout plans utilizing state environmental agencies, contractors
- Conduct outreach programs to public and private schools
- Integrate green cleaning and integrated pest management into comprehensive chemical cleanout programs

3. Clean School Bus Initiatives

Suggested Activities:

- Survey public and private schools to assess compliance with local and national bus idling legislation
- Assist school districts with the selection of buses that run on cleaner fuel options

4. Green/High Performance Schools initiatives: State health departments and their partners will promote the development of high performance schools, including the adoption of regulations and guidelines, education and outreach to school stakeholders, and the provision of technical assistance in ensuring good IEQ practices.

Suggested Activities:

- Provide public and private schools with information on green building technologies and certification programs
- Assist schools with becoming green and reducing their energy costs
- Work with ATSDR to address school-siting issues (e.g., schools near landfills are concerned with vapor intrusion)
- Provide training on the EPA's Design Tools for Schools resources

5. School Health Officer Education and Intervention Initiatives

Suggested Activities:

- Develop and disseminate new or existing education and outreach programs, including programs focused on asthma control such as Easy Breathing
- Develop and implement school-based IEQ-related health surveillance systems
- Develop a statewide system to collect school surveillance data to look for trends

Residential IEQ

1. Healthy Homes interventions

- Education, training, and outreach to homeowners, renters, and/or landlords/property managers on best practices for IEQ, including reducing indoor mold, moisture control, mold prevention
- Train home visitors (public health nurses, social workers, housing inspectors, health inspectors) to be able to conduct Healthy Home inspections

- Integrate lead, asbestos and radon program efforts into Healthy Homes programmatic interventions

2. Low Income Housing Interventions

Suggested Activities:

- Education, training, and outreach to housing agency staff, renters, and property managers on best practices for IEQ, including reducing indoor mold, moisture control, mold prevention
- Train low-income housing residents to assist other residents to implement good IEQ/asthma friendly practices
- Integrate lead, asbestos and radon program efforts into Healthy Homes programmatic interventions
- Promote local efforts to expand Healthy Homes concept, including local health department-led inspections

3. Outreach and education to housing inspectors, building code enforcers

Suggested Activities:

- Education, training, and outreach to state organizations that represent housing inspectors and building code enforcers on best practices for IEQ, including reducing indoor mold, moisture control, mold prevention

Workplace IEQ

1. Public and Commercial Buildings interventions

Suggested Activities:

- Education, training, and outreach on IAQ which includes substantial content on Moisture control, mold prevention, and mold remediation consistent with EPA guidance
- Provide technical assistance, and/or conduct outreach and training to building design, construction, operations and/or maintenance professionals on IAQ best practices and protocols consistent with EPA guidance, such as I-BEAM
- Conduct one or more case studies to demonstrate best practices for IAQ consistent with EPA IAQ guidance in design and construction of a new building and/or operation and maintenance in an existing building and widely disseminate results
- Develop strategies for assisting public and commercial building occupants to implement team-based IEQ programs such as Connecticut's "Tools for Offices" program

- EPA Building Air Quality Action Plan
- Assisting Labor/Management Health & Safety Committees to address IEQ

2. Promotion of High Performance Buildings with good IEQ Practices

Suggested activities

- Provide public and private schools with information on green building technologies and certification programs, including green purchasing guidelines
- Assist schools with becoming green and reducing their energy costs
- Work with ATSDR to address school-siting issues- e.g.: schools near landfills are concerned with vapor intrusion.
- Provide training on the EPA's Design Tools for Schools resources

Technical Capacity

- Industrial Hygiene capacity
- Equipment
- Health Risk Assessment

Evaluation Criteria

1. The proposed project goals and objectives align with EPA's Strategic Plan and indoor environmental quality priority area goals
2. The proposed project goals and objectives demonstrate the ability to achieve substantial measurable environmental outcomes.
3. The proposed project shows innovative approaches to achieving project goals, objectives, and measurable environmental outcomes.
4. The proposed project goals and objectives are likely to reduce exposures to indoor air pollutants for socio-economically disadvantaged or disproportionately impacted populations
5. The proposal provides evidence of sufficient organizational experience, including relevant performance in achieving substantial measurable environmental outcomes in past projects of comparable size and scope.
6. The proposed project addresses how applicant will sustain successes in meeting goals, objectives, and environmental outcomes.
7. The proposed project demonstrates that activities are replicable and can yield large-scale impacts.
8. The proposed project specifies practical approaches to identify, measure, and evaluate programmatic outputs and environmental outcomes and identifies baseline(s) to measure

them.

9. The proposed project specifies how progress towards achieving goals, objectives, and measurable environmental outcomes will be tracked and reported.

VIII. Model Budget Guidelines for a State IEQ Cooperative Agreement Program
(per state):

Personnel

(2- 4 staff persons [depending on state size] industrial hygienist (s), health educator, toxicologist.....\$200,000 – 400,000)

Contractual Costs

(training, special studies, marketing, graphic design.....\$20,000 – 50,000)

Travel

(mileage/vehicle lease, national conferences, hotel, meals..... \$10,000 – 25,000)

Equipment

(sampling equipment and materials, computers, phones, etc.....\$10,000 – 20,000)

Supplies.....(\$2,000 – 4,000)

Printing.....(\$10,000 – 20,000)

IT Application Development

(database, online surveys, digital assessment tools).....(\$30,000 – 60,000)

Other

(mailings, etc.....(\$2,000 – 4,000)

Sub-Total.....(approx \$330,000 – 630,000)

Indirect

(approximately 20%, negotiated by agency for overhead).....(\$66,000 – 126,000)

TOTAL..... (\$396,000 – 756,000)

IX. References

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- (13) “Summary of IAQ Programs,” prepared by Environmental Law Institute for the 2003 Workshop, unpublished.
- (14) Unpublished white paper, “Evaluation of the Effectiveness of using “Tools for Schools” to improve Indoor Air Quality in Connecticut Schools, Kenny Foscue, Meg Harvey, August 2005.

Draft: 10-26-15

(15) Final Report to HUD: The Healthy Public Housing Initiative, HUD Prime Grant # MALHH0077-00, John D. Spengler, PI, Harvard School of Public Health (HSPH).

Table I: U.S. Burden of Poor IEQ

Data	Reference
For carbon monoxide, from 2004-2006 there were 20,636 emergency department visit annually in the US for nonfatal, unintentional, non--fire-related CO exposures. Approximately 73% of these exposures occurred in homes. Children under age 5 had the highest rate of ED visits (11.6 per 100,000 for children vs 7.0 per 100,000 for all ages).	Annest, J., et al., <i>Nonfatal, Unintentional, Non--Fire-Related Carbon Monoxide Exposures --- United States, 2004--2006</i> . Morbidity Mortality Weekly Report, 2008. 57 (33): p. 896-899.
The prevalence of asthma in industrialized nations has almost doubled since 1980.	Institute of Medicine, <i>Clearing the air: asthma and indoor air exposures</i> . 2000, National Academy Press: Washington, D.C. p. 1-18.
The prevalence of asthma in industrialized nations has almost doubled since 1980. Environmental asthma is primarily associated with indoor, not outdoor, exposures. A national survey of asthmatics found that only 30% of asthmatics have taken all the essential actions recommended to reduce exposure to asthma triggers.	Jacobs, D.E., T. Kelly, and J. Sobolewski, <i>Linking public health, housing, and indoor environmental policy: successes and challenges at local and federal agencies in the United States</i> . Environmental Health Perspectives, 2007. 115 (6): p. 976-982.
While much of the attention in regarding air quality has focused on outdoor pollution, it should be noted that IEQ is also related to outdoor pollution. Most of our exposures to outdoor pollutants (ozone, PM2.5) occur indoors. For example, indoor ozone levels were found to be 22-66% of outdoor levels and PM2.5 levels 35 – 64% of outdoor levels.	Mitchell, C., et al., <i>Current state of the science: health effects and indoor environmental quality</i> . Environmental Health Perspectives, 2007. 115 (6): p. 958-964.
A 2005 US EPA study found that only 22% of US school had an indoor air quality management plan that meets EPA standard for effectiveness.	Jacobs, D.E., T. Kelly, and J. Sobolewski, <i>Linking public health, housing, and indoor environmental policy: successes and challenges at local and federal agencies in the United States</i> . Environmental Health Perspectives, 2007. 115 (6): p. 976-982.
Poor IEQ can impact student learning, staff productivity, and absenteeism in schools. The impact of poor ventilation, discomfort and specific hazards have been estimated to affect performance by 2-8%.	U.S. Environmental Protection Agency, <i>Indoor Air Quality and Student Performance</i> . 2003: Washington DC.
The most common IEQ problems in schools are related to inadequate ventilation, moisture and	Daisey, J.M., W.J. Angell, and M.G. Apte, <i>Indoor air quality, ventilation,</i>

mold, volatile organic chemicals, and allergens. Underlying causes include compliance with earlier standards/codes, inadequate maintenance, insufficient cleaning, poor construction/design.	<i>and health symptoms in schools: an analysis of existing information.</i> Indoor Air, 2003. 13 : p. 53-64. Tranter, D.C., <i>Indoor allergens in settled school dust: a review of findings and significant factors.</i> Clinical and Experimental Allergy, 2005. 35 : p. 126-136
Studies have reported mold and moisture are common problems in homes. One study of 6,723 school children found 58% of homeowners reported water damage or mold, and another study of 16,000 homes found 22% of homeowners reported mold in their homes.	Wu, F., et al., <i>Improving indoor environmental quality for public health: impediments and policy recommendations.</i> Environmental Health Perspectives, 2007. 115 (6).
IEQ problems in homes may be on the rise. The percentage of households with children ages 0–17 that reported housing problems increased from 30% in 1978 to 40% in 2005.	Federal Interagency Forum on Child and Family Statistics, <i>America's Children in Brief: Key National Indicators of Well-Being</i> , 2008. 2008.
Five million families and over 4 million children live in substandard housing where families may be exposed to hazards such as lead, asbestos, mold, cockroaches, mice, rats, carbon monoxide and tobacco smoke.	Bashir, S., <i>Home is where the harm is: inadequate housing as a public health crisis.</i> American Journal of Public Health, 2002. 92 (5): p. 733-738.
One quarter of asthma cases in the US are estimated to be attributable to dampness and mold exposure in the home, at a cost of approximately \$3.5 billion per year.	Mudarri, D. and W.J. Fisk, <i>Public health and economic impact of dampness and mold.</i> Indoor Air, 2007. 17 : p. 226-235.
IEQ is an environmental justice issue. Poor IEQ disproportionately impacts low income populations—the poor are 3 times as likely to have sub-standard housing [2] and have 2.5 times the rate of blood lead levels above 2.5 ug/dL.	Federal Interagency Forum on Child and Family Statistics, <i>America's Children in Brief: Key National Indicators of Well-Being</i> , 2008. 2008.
Through the end of 2007, it can be estimated that about 4.5 million US homes have radon-reducing features, yet this is still a small fraction of US homes [1]. Every million homes mitigated have the potential to prevent about 900 premature lung cancer cases.	Jacobs, D.E., T. Kelly, and J. Sobolewski, <i>Linking public health, housing, and indoor environmental policy: successes and challenges at local and federal agencies in the United States.</i> Environmental Health Perspectives, 2007. 115 (6): p. 976-982.

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Cooperative Agreement Grant Program Document

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To: Janet McCabe **Personal Privacy** McCabe, Janet[McCabe.Janet@epa.gov]
From: Drinkard, Andrea
Sent: Mon 10/26/2015 12:04:37 PM
Subject: FW: Updated Indiana Talking Points and Materials
[Indiana County Ozone info.docx](#)
[1 Idw JM Info on Indiana SO2 SIPs 10 23 15 lw 300.docx](#)
[Indiana backgrounder for Janets speeches.docx](#)
[Current nonattainment areas in IN.docx](#)
[Indiana Chamber McCabe Oct 29 2015 v2.docx](#)

Resending just in case.

From: Drinkard, Andrea
Sent: Friday, October 23, 2015 4:38 PM
To: McCabe, Janet <McCabe.Janet@epa.gov>
Cc: OAR Briefings <OAR_Briefings@epa.gov>
Subject: Updated Indiana Talking Points and Materials

Hi Janet,

I wanted to respond to your questions both via email instead of your electronic folder so you have everything in one place. Please let me know if you have any additional edits or need additional information and I can pull that on Monday. Apologies in advance for the extensiveness of this email.

First and foremost, here are the updated talking points.

Response to Comments

Comment 1: For CPP, I need more of the talkers we used when the CPP went out about how the final rule set the uniform rates, were based on the interconnects, were responsive to comments, reliability, timing etc.

Response 1: Done and incorporated in the attached talking points. These should be familiar to you, and hopefully hit the mark on what you're looking for.

Comment 2: And specifics related to the IN target, any Indiana specific comments (especially ones they've sent since August 3--e.g. they are saying that we got applicability wrong for at least one facility--where are we on that) and any info I can include about renewable opportunities, etc.

Response 2: I've attached a background document that includes Indiana-specific information to this email. I've also included a couple of Indiana-specific references in your talking points. Oddly, their comments didn't lend themselves to inclusion in the

talking points, so I did what I could.

Lastly on the applicability issue. Region V hasn't heard anything specific, but we heard from R5 staff that the state was waiting to see the exact wording in the published notice before formulating a position about whether certain facilities should be in or out. As far as applicability in general, the list of EGUs that went out with the final rule was not the official list of affected EGUs. It was EPA's "best guess" of the EGUs that would be affected based on the information we had. The states have to determine which EGUs are in fact affected EGUs. They do this through the requirements of the state plan submittal.

Comment 3: On the NAAQS, can Region V or OAQPS please provide a summary of what counties are now nonattainment, and what the current data show for the 70 ppb standard.

Response 3: See attached summary. I also included the summary information in your talking points, so you'd have it while you were speaking in case asked.

Comment 4: just fyi--the transport notes still have the references to Debbie in them....

Response 4: Fixed, ugh, I'm sorry.

Comment 5: specific information about SO₂ nonattainment areas would also be helpful, and confirmation whether IN submitted a SIP last april, and whether we expect any additional nonattainment areas in the next round.

Response 5: I've added text to the talking points that responds to both of these and I've attached a pager that provides additional details.

Here's a list of the current nonattainment areas in Indiana for all pollutants, in case it's helpful

Comment 6: and for MATS, what's the compliance status of the IN plants, if we know.

Response 6: Some background: Indiana is not a NACAA member so we don't have much information on the status here. Indianapolis is a member and they have received one 4th year request, but this is certainly not the only request. Ellen has a call into MISO to see what they're tracking, if I hear back from them on Monday I'll let you know.

In the meantime, I've updated the language in the MATS section and inserted a general comment about progress.

Indiana Environmental Conference 2015

October 27, 2015

9:10 am - 9:45 am

25-30 minutes of remarks, followed by 5-10 minute Q&A

(Introduction)

- Thank you [Name]
- Good morning and thank you so much for the opportunity to speak with you today about the Office of Air and Radiation's top priorities for the coming year.
- Before I begin, I want to thank both the Indiana Chamber of Commerce and IDEM for sponsoring this event. I always enjoy getting out the office and out of DC to talk to our stakeholders and it's definitely an added benefit when I get to meet with fellow Hoosiers—not to mention sleep in my own bed!
- With such an impressive agenda, I'm confident all of you will gain a greater perspective on a wide range of environmental issues. Thank you for including me and giving me the opportunity to share some of the good work we're doing in the air office at EPA.
- EPA has had an extremely busy and exciting year, particularly in terms of our work under the Clean Air Act.

- We've been working on a variety of climate-related initiatives including the Clean Power Plan, methane rules, and others, as well as continuing our efforts to address the NAAQS and hazardous air pollutants.
- I do want to save as much time as possible to hear from you and answer your questions, so let's get started.

25th ANNIVERSARY OF CAA AMENDMENTS - PROGRESS

- For more than 40 years, EPA's mission has been to protect the American public from harmful pollution, and the United States has seen tremendous success in cleaning up the air we breathe, the water we drink and the land where we live, work and play.
- Next month, we will celebrate the 25th anniversary of the Clean Air Act Amendments of 1990. The Amendments represented a renewed commitment to reducing pollution and attaining air quality improvements.
- Even 25 years ago, forward thinking policymakers knew the impacts of these Amendments were essential - reducing toxins to significantly improve health issues for American citizens, and adding protection for our lakes, parks and forests.
- You know the statistics--Since 1990, the US has seen a 28% population increase and a 41% increase in vehicle miles

travelled. During that same period, though, we have also seen a 50% decrease in emissions of the six NAAQS pollutants – that’s pretty incredible, and a testament to the effectiveness of the Clean Air Act Amendments.

- This is good news, but we know there is still more work to be done. Still too many people living in areas where air quality doesn’t meet health standards, or where families in vulnerable neighborhoods are exposed to levels of air pollution that put them at risk. And more work to be done, for sure, to address the threat of climate change.
- October is Children’s Health Month. You may or may not know this, but before I came to EPA I ran a small nonprofit called Improving Kids’ Environment here in Indianapolis. So the work that all of us do to protect the health of our children is very important to me and there’s no better time to think about the importance of what we are doing and to keep us moving forward. Actions like the recent revisions to the ozone standard, the Clean Power Plan and the Agricultural Worker Protection Standard to protect children from pesticide exposure are three examples of steps we are taking to protect our children now and into the future.

CLIMATE ACTION PLAN

- Two years ago, President Obama announced the Climate Action Plan, which committed the U.S. to cutting carbon pollution at home, preparing for the climate impacts we can't avoid, and leading the world on taking action against climate change.
- EPA is taking steps in five key areas:
 - The Clean Power Plan,
 - Oil and gas rules,
 - Voluntary approaches for reducing methane,
 - Greenhouse gas standards for heavy duty vehicles, and
 - Actions related to the reduction of hydrofluorocarbons (HFCs).
- I'd like to tell you about our plans for some of these efforts as we move forward with implementing the President's Climate Action Plan.

(CPP Intro)

- On August 3rd, President Obama and EPA Administrator Gina McCarthy announced the final Clean Power Plan. Our historic Plan will cut hundreds of millions of tons of carbon pollution from power plants, the largest source of carbon pollution in the

United States.

- While I won't be discussing them in detail today, it's important to note that the agency also finalized standards for new, modified and reconstructed power plants at the same time.
- The final Clean Power Plan was shaped by unprecedented outreach, including hundreds of meetings and 4.3 million public comments.
- And we really appreciate all of the time many of you have spent over the past two years meeting with us and commenting on the proposal. We heard quite a few comments from the state of Indiana and as a result, we were able to make some important changes to the final rule based on the input we received.
- We know that we may not agree on everything and that we weren't able to make all of the changes you requested, but we think everyone here has an important role as we move toward implementation.
- Let me also say that as you think we move to the implementation stage of this rule, Indiana has the distinct advantage of already investing in a broad interstate electricity market and those investments have yielded low-cost energy options for residents and businesses in the state and throughout the region.
- In many ways, the final Clean Power Plan reflects that same

broad market and is designed to allow Indiana to take advantage of the same economic mechanisms to reduce carbon pollution.

- **Note: Indiana is party to the lawsuit that Kentucky submitted on October 23rd.**

How it works

- In the final rule, there have been several key changes and improvements, and overall, it is more flexible, more affordable and easier for states to implement.
- In the final Clean Power Plan, EPA took a much more straightforward approach to setting state goals than in the proposed rule. This approach has the effect of making states' goals more similar to one another, and of taking away the "cliff," or very steep early reduction, that some states were facing.
- To set the state goals in the final rule, EPA established interim and final carbon dioxide emission performance rates for two subcategories of fossil fuel-fired electric utility generating units (EGUs) – one for coal- and oil-fired units, and another for gas-fired units. These rates are the same for all units of the same type across the country.
- State goals are then based on these uniform rates – the goal is

a weighted average of the percent of generation of steam versus gas in a state.

- By first establishing uniform emission performance rates that are the same for each type of plant, EPA was able to address many commenters' concerns about the fairness of the state-specific goals in the proposal. This approach is far more equitable because the state goals still reflect the unique energy mix in each state while treating power plants equally across the country.
- And because of the way the interconnected system of electricity generation works in this country and the wide range of strategies available to generators, these rates are reasonable and achievable over time, and states and utilities have until 2030 to meet them.
- The next thing you need to know is that in order to maximize the range of choices available to states, EPA is also establishing statewide goals in two forms that are equivalent to the category-specific CO₂ emission performance rates I just mentioned:
 - A statewide rate-based goal measured in pounds of CO₂ per megawatt hour (lbs/MWh)
 - A statewide mass-based goal measured in total short tons of CO₂ emissions

- States can choose between a rate-based plan and a mass-based plan. We heard from states that some prefer rate, while others prefer mass.
- States can also choose between two types of plans - an “emission standards” state plan type (all requirements on the affected EGUs), or a “state measures” state plan type (a mix of measures that may apply to affected EGUs and other entities, with a backstop of federally-enforceable standards on affected EGUs).
- This may sound like a lot of choices. We listened to states and are giving them a number of choices in response to their input.
- But we’ve also developed Model Rules as part of the Federal Plan, both in rate-based form and mass-based forms. The model rules are designed to be used directly by a state if it so chooses.
- The model rules provide a cost-effective pathway to adopt a trading system supported by EPA and make it easy for states and power plants to use emissions trading. It does the heavy lifting for states who may choose to use a model rule as their state plan.
- The EPA would implement the federal plan in any state that does not submit an approvable plan.
- We heard from many states and utilities that they saw a lot of

benefit in linking with other states, but many thought that the administrative burden of working upfront with other states, and entering into formal agreements, was not so attractive.

- The final CPP provides (though doesn't require) trading-ready mechanisms in which states or power plants can use creditable, out-of-state reductions to meet their goal without the need for up-front interstate agreements. EPA will support trading for states who would like us to do so.
- Together the CPP and the Model Rules work to address and eliminate many of the barriers to trading that states identified in their comments.

Other Key Changes

- EPA is providing additional time before compliance begins, again in response to comments from many states—including Indiana—and others.
- Instead of 2020, the first compliance period begins in 2022. We made that change to provide more time for planning, and, in particular, for states to consider reliability as they design their plans.
- States still need to provide an initial submittal to EPA in September 2016, but we know that many states will need more time to develop their final plans.

- So states can receive an extension to 2018 if they provide an initial submittal with a few basic components – a justification for the extension, a description of the state plan type they're thinking of developing, and a description of their public engagement process to date and their planned involvement with their communities.
- In addition, EPA is creating the Clean Energy Incentive Program (CEIP) to reward early investments in certain renewable energy and energy efficiency projects during 2020 and 2021. This program is optional for states. If states choose to participate by making credits or allowances available in these early years for RE and EE, EPA will match those credits up to a certain point. And, recognizing that low-income communities are often under-represented in clean energy investments, we are targeting low-income communities for investments in energy efficiency.
- I want to be clear that investment opportunities and emission reduction opportunities begin today, and planning, reductions, and investments can start now. In addition, through the Clean Energy Incentive Program, states can count reductions achieved as a result of these investments as early as 2020.
- Right now, according to the American Wind Energy Association, Indiana is the third-fastest growing state in wind

energy capacity, ranking 11th in the nation. Between 2009 and 2010, the state increased its wind capacity 10-fold.

- Indiana boasts 1,300 megawatts of wind power. There's an additional 8,000 megawatts more wind power in the works.
- So right now, states are exploring their options, and are:
 - building relationships among key state institutions (for example, environmental agencies and PUCs) and other stakeholders (utilities)
 - seeking public input having conversations with other states that may be interested in multi-state approaches

(CPP Status)

- Since the rules were issued in August, EPA has continued our extensive engagement with stakeholders. And as we move toward implementation, I want you to know that EPA remains committed to continuing the conversation.
- Two issues on which we've gotten a lot of interest and questions are the initial submittal—for states that intend to seek an extension for filing their plans—and the Clean Energy Incentive Program.
 - Last week we issued a **memo** that will lay out what states

- will need to include in their initial submittals that are due next September. This information should help clarify that the elements required for the initial submittal are really very straightforward and are not intended to be a heavy lift for states, but rather reflect states' preliminary activities to engage stakeholders and begin to think about the options and the steps you will take to put your plans together.
- On the CEIP, we promised some additional opportunities for input on how that program will work. We're putting out a short document today that indicates that, in addition to the opportunity to comment on the proposed federal plan, we will also be holding a series of conference calls with stakeholder groups to continue conversations about CEIP in November and December. EPA will share background information and solicit feedback on a variety of CEIP topics. We are looking forward to discussing issues like:
 - criteria for eligible projects;
 - how many allowances go to energy efficiency or renewable energy projects;
 - distribution of allowances among states; and
 - how state, tribes and territories for whom goals have not yet been established may be able to participate.
 - Also last week, we are posting the first two of a number of

training videos we plan to make available online. These videos are designed for a variety of audiences and will cover topics ranging from an overview to state plan components, multi-state plans, community considerations, and others in the coming weeks and months.

- The Federal Register published the final Clean Power Plan, the proposed federal plan and model rules, and the final carbon pollution standards for new sources on Friday, October 23.
- Publication of the proposed federal plan and model rules begins a 90-day public comment period that runs through January 21, 2016. We will also hold public hearings. Details on those hearings will be available soon.

(Methane – Oil and Gas Rules)

- Beyond addressing carbon pollution from power plants, the President's Climate Action Plan also instructed EPA to address methane emissions; the White House announced the next steps in the Methane Strategy on January 14th, 2015.
- EPA's portion of the strategy includes both regulatory and voluntary approaches.
- In mid-August we proposed a suite of oil and gas rules and guidelines that will help combat climate change, reduce air

pollution, and provide greater certainty to industry about permitting requirements.

- EPA took the following actions:
 - Proposed updates to New Source Performance Standards for the oil and gas industry to reduce emissions of methane and other greenhouse gases along with volatile organic compounds (VOCs),
 - Issued draft Control Techniques Guidelines (CTG) for states to use to reduce VOC emissions from existing processes and equipment in the oil and natural gas industry in certain areas and states with air quality problems,
 - Proposed a “Source Determination Rule” to clarify EPA’s air permitting rules as they apply to the oil and natural gas industry, and
 - Proposed a Federal Implementation Plan for EPA’s Indian Country Minor New Source Review program for oil and gas production sources.
- These actions will reduce emissions from this rapidly growing industry, and will help to ensure that development of these energy resources is safe and responsible.
- A number of states are already or are planning to regulate

air pollution from the oil and natural gas industry, and these actions would not interfere with their efforts, if their requirements are not weaker than the federal rules.

- The comment period for the proposed rules is open until November 17th.

(Methane Challenge)

- The oil and gas sector is one of the leading sources of anthropogenic methane emissions in the United States, with annual emissions of approximately 180 million metric tons of carbon dioxide equivalent in 2013.
- In addition to regulatory approaches, the White House asked EPA to pursue voluntary approaches for reducing methane emissions, such as expanding the agency's successful Natural Gas STAR Program.
- Voluntary approaches are particularly attractive in the oil and gas sector because of the numerous low-cost and very cost effective practices that can be done to reduce emissions of the valuable economic asset.
- In late July we released for comment our new Natural Gas Star Methane Challenge program. This program would provide a new way for oil and gas companies to make and track

ambitious commitments to reduce methane while realizing significant methane reductions in a quick, flexible, cost-effective way.

- The program has the potential to foster significant cost-effective emission reductions across the oil and gas sector and to provide transparency on the progress partner companies are making to reduce emissions.
- The proposed program would include companies with operations throughout the natural gas value chain – onshore production, gathering and boosting, processing, transmission, storage, and distribution – and in onshore oil production.
- We are currently accepting feedback until November 13th, and plan to launch the Methane Challenge Program by the end of the year.

(HFCS)

- The Climate Action Plan directed the U.S. to address the rapidly increasing use of potent HFCs through international diplomacy and domestic action.
- On the international front, we've been working hard with Department of State and other parts of the government towards

securing an amendment to the Montreal Protocol to phase down HFCs that is acceptable to all countries. We have made significant political progress towards building support for an amendment and are looking forward to the 27th Meeting of the Parties to the Montreal Protocol later this month.

- Domestically, the President's Plan directed his Administration to purchase cleaner alternatives to HFCs whenever feasible and to transition over time to equipment that uses safer and more sustainable alternatives. This past May, DoD, GSA, and NASA sponsored a proposed rule to amend Federal Acquisition Regulations to implement this policy for the federal government to procure, when feasible, alternatives to high-GWP HFCs.
- The President also directed the EPA to use its authority through the Significant New Alternatives Policy (SNAP) Program to encourage private sector investment in low-emissions technology by identifying and approving climate-friendly chemicals while prohibiting certain uses of the most harmful chemical alternatives.
- During the past year, EPA has completed four separate actions under SNAP. Three of these expanded the list of climate-friendly alternatives and one changed the status of certain high

GWP HFCs for specific uses including: motor vehicle air conditioning, aerosols, foams and some refrigeration uses.

- A couple weeks ago, EPA Administrator McCarthy signed a proposed rule that will strengthen and simplify our existing refrigerant management requirements and apply improved standards for ozone-depleting refrigerants to HFCs
- We know that by ensuring equipment is properly installed and maintained, that technicians are certified, and that leaky systems are repaired, we can reduce emissions of climate-damaging HFCs
- Right now, we're also working on our next SNAP notice, which will add fluorinated and non-fluorinated alternatives, providing more options that can be used in many sectors.
- We're also preparing our next SNAP regulation that will change the status of certain high global-warming-potential HFCs and will expand the list of climate-friendly alternatives. We anticipate initiating this proposed rulemaking in the first half of 2016.

(Mobile Sources—VERY briefly mention, not of particular interest to this audience)

Heavy Duty GHG

- We also continue our work to cut carbon pollution from vehicles and aircraft—both important aspects of the President’s Climate Action Plan.

OTHER KEY PRIORITIES

(Ozone NAAQS Implementation)

- Another of our priorities is implementation of the new ozone NAAQS, which was announced earlier this month.
- This strengthened standard will improve public health protection across the country and provide the adequate margin of safety that is required by law and that the science supports.
- The Administrator’s decision to revise the standard was based on a review of thousands of scientific studies, consideration of the more than 430,000 public comments on the proposal, the advice of CASAC, and a review of the uncertainties that remain.
- I want to emphasize that the new standard is achievable. States will have the time and flexibility they need to plan for and meet the new standard; in fact, with rules that already exist, we expect that all but a few areas around the nation will meet it by 2025.

- We have made a lot of progress on ozone over the years, together as state and Federal partners. I think it's pretty remarkable that more than 90 percent of the areas originally identified as not meeting the ozone standards set in 1997 now meet them.
 - **NOTE:** Based on the most recent data, Indiana has 11 counties with monitors that do not meet the 2015 ozone standard.
 - **NOTE:** Also based on the most recent data, only LaPorte County violates the 2008 standard (they have never been nonattainment).
 - Lake and Porter Counties are part of the 2008 Chicago marginal nonattainment area. And, a portion of Dearborn County in the Cincinnati nonattainment area is classified as marginal nonattainment for the 2008 ozone NAAQS.
- Recognizing that implementation starts now and that states need implementation guidance and rules from EPA, we have provided an outline of how EPA will work with state, tribal, local and federal agencies to implement the updated standards in a way that maximizes common sense, flexibility and cost-effectiveness, while following the requirements of the Clean Air Act.

- We issued an *Implementation Memo* with the revised standards that outlines the agency's plans for addressing a variety of issues
- Here are some highlights of the Implementation Memo:
 - Guidance available to agencies;
 - The agency plans to propose rules and guidance over the next year to help states that have potential nonattainment areas implement the revised standards.
 - The agency also plans to update its Exceptional Events Rule, which outlines the requirements for excluding air quality data (including ozone data) from regulatory decisions if the data are affected by events outside an area's control, such as a wildfire or stratospheric intrusion.
 - In addition, EPA is developing guidance to address Exceptional Events Rule criteria for wildfires that could affect ozone concentrations. The agency anticipates receiving additional fire-related exceptional events demonstrations as climate change leads to increases in wildfires.
 - Designating areas;
 - As required by the Clean Air Act, EPA anticipates

making attainment/nonattainment designations for the revised standards by late 2017; those designations likely will be based on 2014-2016 air quality data.

- Background ozone:
 - We are aware about the concerns some have about background ozone levels.
 - It is unlikely that background ozone will affect a state's ability to meet the standard.
 - The Clean Air Act provides tools to help states with this issue.
 - EPA will hold a technical workshop as a forum for people to talk about background ozone.
- The Implementation memo touches on a number of other topics as well, including: permitting, interstate transport, wildfires, transportation planning and others.

(Transport Rule for 2008 Ozone NAAQS)

- I'll turn next to transport; I have some updates to share with you on that topic.
- In July, the U.S. Court of Appeals for the D.C. Circuit issued its opinion on the remaining issues raised with respect to the

Cross State Air Pollution Rule (CSAPR), and EPA is pleased that the court decision keeps CSAPR in place. We are determining an appropriate further course of action in response to certain aspects of that opinion.

- Together with states and stakeholders, we have been working to develop a path forward to improve ozone air quality and address transport for the 2008 ozone standards.
- EPA is also planning to develop and promulgate FIPs, if necessary, by issuing a proposal later this year. It is our intention that any federal rule developed to satisfy this obligation would provide ample opportunity for states to pursue alternatives through the SIP process.
- States and EPA have been thinking about appropriate actions to address interstate ozone transport for the 2008 ozone standards. We held a workshop with states in NC on April 8th to talk about these issues.
- Under the CSAPR framework, we will be identifying emission reductions necessary to prevent upwind states from contributing significantly to the downwind air quality problems.
- We are working on assessing power sector NOX controls and ozone season NOX mitigation potential with attention to actions that are cost-effective and can be taken quickly.
 - States and EPA have a shared understanding that

actions should be taken to address interstate ozone transport for the 2008 NAAQS under the "good neighbor" provision of the Clean Air Act.

- EPA believes that the CSAPR framework could be used to:
 - Determine appropriate actions to address interstate ozone transport for the 2008 NAAQS (i.e., identifying problem areas, the states that contribute to them, and appropriate emission reductions)
 - Implement NOX reductions via the CSAPR ozone season limited-interstate trading program (i.e., states could lower their CSAPR ozone season NOX budgets and variability limits).
- EPA's proposed Interstate Transport Rule for the 2008 Ozone NAAQS is currently at OMB for interagency review.

(SO2 - Implementation of 2010 Standard)

- We are still in the process of designating areas for the 2010 SO2 NAAQS. We initially designated 29 areas in 16 states, and state plans demonstrating how these areas would meet the standard were due by April 4, 2015. Four areas in Indiana

were designated as nonattainment and EPA is currently reviewing the states plans for those areas.

- Per a recent court decision, we must complete the remainder of the designations on a schedule through 2020, which most designations happening in the next year or two. For the second round of designations, the state of Indiana had 5 sources that met the criteria of the Consent Decree. Indiana is recommending a designation of attainment for all 5 areas.
- In September 2015, we finalized the data requirements rule that provides requirements for states to:
 - characterize current air quality in areas with large sources of SO₂ emissions and
 - provide these data to the EPA; the data will inform future rounds of designations for the 2010 standard through 2020.

(MATS)

- This summer, the Supreme Court held that EPA should have considered costs at an earlier step in the rulemaking process for MATS.
- The decision, although unfortunate, was narrow. The Court did not limit EPA's authority to control emissions of toxic pollutants from power plants or our decision to regulate in this instance,

other than holding that cost must be considered.

- We're working to address this issue—we actually just sent the Considering Cost in the Appropriate and Necessary Finding notice to OMB for review last week.
 - This is the next step in the process of responding to the Supreme Court's narrow decision that the agency must consider costs when determining whether it is "appropriate" to regulate mercury and other toxic air emissions from power plants. EPA is committed to completing this process in the coming months, including issuing and taking public comment on this initial finding.
- While EPA is working through this process, the MATS rule is in place.
- And through our coordination with the states and state agencies like EOCS, NACAA and AAPCA, we're hearing that power plants across the country are doing what they need to do to comply with MATS.
 - **NOTE:** According to NACAA, Indianapolis has received and granted one 4th year requests. We do not know how many requests have been granted in IN. We are not aware of any 5th year requests coming from IN.
- MATS is an important rule that protects the health of all

Americans from toxic air pollution, including mercury, from power plants. EPA estimated that for every dollar spent to reduce toxic pollution from power plants, the American public would see up to \$9 in health benefits.

(Refineries)

- I'd like to take a minute or two to briefly mention the refineries rule, which we announced at the end of September.
- The rule finalizes our risk and technology review and new source performance standards.
- There are approximately 150 petroleum refineries in the United States, two of which are located in Indiana. Many are located near communities; our analysis has shown that low income and minority populations are twice as likely to live near the fence-line of a refinery than other Americans.
- These communities have a strong interest in knowing more about the emissions coming from refineries in their neighborhoods, so this rule responds to that need with the **first ever industry-wide requirements for fence-line monitoring**.
- Communities wanted these monitoring data to be managed by EPA and made publicly available:
 - We will be developing a database to house the data and

- make the information available,
 - We will also work to empower communities to understand and interpret what they're seeing.
 - As we have seen with other programs that require the public posting of data, transparency can lead to greater responsibility and less pollution.
- The rule requires that corrective actions be taken when a problem is detected, and it's also important to note that the rule includes incentives for facilities to fix things immediately before they become pollution problems.
- Communities have been concerned about "upsets" at refineries, and the rule addresses that concern with provisions that will nearly eliminate smoking flare emissions and releases by pressure release devices during upsets, and it requires some new or additional controls for certain sources.
- So those are a few of the highlights of the refineries rule.

CLOSING

- I encourage you to take advantage of the time you have together over the next two days to listen, learn and ask questions.
- We look forward to continuing the conversations on all of these Clean Air Act efforts.

- At this time, I'd like to hear from you and take some questions now.

To: McCabe, Janet[McCabe.Janet@epa.gov]
From: DeMocker, Jim
Sent: Fri 10/23/2015 8:12:24 PM
Subject: CAAAC Nov 17-18 meeting -- draft agenda for your review
[Agenda for November 2015 CAAAC Meeting -- for OAR review.docx](#)

Per roundtable, draft agenda is attached for your consideration. We hope to make any revisions you'd like on Monday then circulate to the CAAAC members and start working with the program office folks on presentations. Thanks! Jim

*This agenda is **only for CAAAC members and Air Toxics Work Group participants** – not for public distribution. A public version of the full CAAAC agenda is also available.*

Schedule and Agenda (Draft)
Clean Air Act Advisory Committee and Related Events
November 17-18, 2015

Hyatt Regency Crystal City*2799 Jefferson Davis Highway* Arlington, VA 22202

Tuesday, November 17, 2015

4:00 – 6:00 Air Toxics Work Group Meeting

- Room: *[to be determined]*
- Call-in phone: Conference Code, code: Conference Code (please keep lines muted)
- Workgroup agenda to be provided separately

Wednesday, November 18, 2015 – Full CAAAC Meeting (open to public)

Call-in phone: Conference Code, code: Conference Code (please keep lines muted)

8:00 - 8:30 Registration

8:30 - 8:40 Welcome

Jim DeMocker, Director, Office of Policy Analysis and Review
U.S. EPA Office of Air and Radiation (OAR)

8:40 – 9:30 Air Program Update and Discussion

Janet G. McCabe, Acting Assistant Administrator, OAR, U.S. EPA

9:30-9:45 NATA report summary

EPA representative
(Questions taken under following agenda item)

**9:45-10:45 Urban Air Toxics Workgroup –
Presentation of Workgroup Report to full CAAAC**

- **Summary of Report Recommendations (25 minutes)**
 - Co-Chair Jalonnie White-Newsome, Federal Policy Analyst, WE ACT for Environmental Justice
 - Co-Chair Myra Reece, Air Quality Bureau Chief, South Carolina Department of Health and Environmental Control
- **Questions and discussion (30 minutes)**
- **Full CAAAC vote on submittal to EPA (5 minutes)**

10:45-11:00 Break

*This agenda is **only for CAAAC members and Air Toxics Work Group participants** – not for public distribution. A public version of the full CAAAC agenda is also available.*

11:00 - 12:15 Update: Implementation of 2015 Ozone NAAQS

- EPA presentation (20 minutes)
 - Scott Mathias or designee, U.S. EPA
- Views or ideas on ozone implementation issues? (25 minutes)
 - Designated CAAAC members [see attachment]
- Q&A session (30 minutes?)

12:15– 1:30 Lunch (on your own)

1:30-2:00 Update: Implementation of the Clean Power Plan

- Presentation (15 minutes)
 - Juan Santiago or designee, Associate Director, Air Quality Policy Division, OAQPS, U.S. EPA
- Q&A session (15 minutes)

2:00-3:00 Clean Power Plan: CAAAC member input on Clean Energy Incentive Program

- EPA presentation (20 minutes)
Kevin Culligan or designee, U.S. EPA
- Discussion (40 minutes)

3:00-3:15 Break

3:15-3:45 Tribal Indoor Air Update

- EPA presentation (15 minutes)
- Q&A (15 minutes)

3:45-4:00 Opportunity for Public Comments

4:00 - 4:30 Miscellaneous Business/Close

- Ports Update – Lee Kindberg, Chair
- Approval of spring 2015 CAAAC meeting minutes – Jim DeMocker, EPA
- Clean Air Excellence Awards Update – Jim DeMocker, EPA
- CAAAA member agenda suggestions for next meeting

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Draft Session Plan: Ozone NAAQS Implementation

Note: The ozone implementation session would include:

- *An EPA presentation (20 minutes)*
- *Remarks by designated CAAAC members (see below): “Views or ideas on ozone implementation issues” (25 minutes)*
- *General CAAAC discussion (30 minutes)*

Designated CAAAC speakers (5 minutes apiece, 5 speakers):

- **A small business focus** -- Daniel Nickey**, National Steering Committee for Small Business Assistance Programs and Iowa Waste Reduction Center, University of Northern Iowa
- **An industry perspective** – e.g.: Robert Morehouse, Air Permitting Forum
- **An environmental group perspective** – e.g., John Walke, NRDC
- **A local government perspective** -- Andrew Hoekzema*, Capitol Area Council of Governments, Austin, TX
- **State perspectives** – Nancy Kruger, NACAA

* This member requested agenda time.

**This member suggested including small business issues on meeting agenda.

To: McCabe, Janet[McCabe.Janet@epa.gov]
Cc: Stewart, Lori[Stewart.Lori@epa.gov]
From: McCoy, Britney
Sent: Fri 10/23/2015 12:37:01 PM
Subject: OAR Rules & Weekly - Oct 23, 2015
[OAR WEEKLY Oct 23.docx](#)
[5786 RFS 2014-2015-2016 final rule 10-22-15.docx](#)
[FR Notice drinking water PAG Clean 10-21-2015.docx](#)
[PAG Proposal Clean 10-21-2015.docx](#)
[CISWI 2nd Recon final 10-21-15 CLEAN.DOCX](#)

Good Morning Janet,

I've attached electronic versions of the rules provided to you yesterday below. Also, I've the Weekly for your review as well.

OAR Weekly

1. PAGs

2. RFS

3. CISWI

Have a great day.

Britney

Green Highlight = At OMB

OAR Weekly – October 23, 2015

Rules Going to OP				
Anticipated Date to OP	Title	Stage	SAN	Office
10/27 – for OMB	PAGs for Radiological Incidents	Notice	5198	ORIA
10/30 – for OMB (c/d 11/30)	Renewable Fuel Volume Standards, 2014-2016	Final	5786	OTAQ
10/30 – for signature	NSPS and Emission Guidelines for CISWI	Final	5731	OAQPS
10/30 – for signature	Exceptional Events Revisions	NPR	5708	OAQPS
10/30 – for signature	Guidance: Exceptional Events Demonstrations for Wildfire Events	Guidance	5708.2	OAQPS
11/4 – for AA signature	Request for Info: O&G Sector	Notice	5732	OAQPS
11/6 – for signature (c/d 11/19)	NESHAP RTR for Aerospace Manufacturing (Subpart GG)	Final	5561	OAQPS
11/6 – for signature	Regional Haze	NPR	5806	OAQPS
Rules in OP				
Anticipated Date to OMB or to Signature	Title	Stage	SAN	Office
10/30 – for OMB	3 rd Report to Congress: DERA (10/6)	Report	5860	OTAQ
10/30 – for signature	NESHAP for Major Source Boilers & Process Heaters (10/21)	Final	5733	OAQPS
11/2 – for signature	Stationary CI Engine NSPS (10/16)	NPRM	5811	OAQPS
Rules for Signature 10/26– 11/6				
Anticipated Signature Date	Title	Stage	SAN	Office
10/30	NESHAP for Major Source Boilers & Process Heaters	Final	5733	OAQPS
11/2	Stationary CI Engine NSPS	NPRM	5811	OAQPS
11/2	Exceptional Events Revisions	NPR	5708	OAQPS
11/2	Guidance: Exceptional Events Demonstrations for Wildfire Events	Guidance	5708.2	OAQPS
11/4	Request for Info: O&G Sector (AA signature)	Notice	NA	OAQPS
Rules in OMB				
Date Submitted to OMB	Title	Stage	SAN	Office
9/23	GHG Reporting – General Revisions (12/17)	NPR	5835	OAP
9/30	Interstate Transport Rule (11/13)	NPR	5744	OAP
10/8	Exceptional Events Revisions (11/2)	NPR	5708	OAQPS
10/15	Guidance: Exceptional Events Demonstrations for Wildfire Events (11/2)	Guidance	5708.2	OAQPS
10/21	MATS Considering Costs	NPRM	5869	OAQPS
Rules Signed Since 8/2015				
Signature Date	Title	Stage	SAN	Office
8/3	EGU Carbon Pollution Standards – New, Modified/Reconstructed Sources	FR	5548	OAQPS
8/3	EGU Carbon Pollution Guidelines – Existing Sources	FR	5548.1	OAQPS
8/3	CPP Federal Plan	NPR	5832	OAQPS

Green Highlight = At OMB

8/5	Relaxation of the RVP Standard For Charlotte, NC	DFR/NPR	5837	OTAQ
8/5	Regional Consistency Amendments	NPR	5799	OAQPS
8/10	SO2 Data Requirements	FR	5586	OAQPS
8/12	GHG PSD and Title V – Removal of Vacated Elements	FR	5824.1	OAQPS
8/14	Test Method Revisions	NPR	5778	OAQPS
8/14	Secondary Aluminum NESHAP RTR	FR	5468	OAQPS
8/14	Landfills NSPS	NPR	4846	OAQPS
8/14	Landfills Emission Guidelines	NPR	4846.1	OAQPS
8/18	O&G NSPS	NPR	5719.1	OAQPS
8/18	CTG for O&G Sector	Notice	5722	OAQPS
8/18	Source Determination for O&G Sector	NPR	5737	OAQPS
8/18	O&G Indian Country Minor NSR	NPR	5727	OAQPS
8/19	Marginal 2008 Ozone NAAQS Determinations (AA signature)	NPR	5850	OAQPS
8/20	Ground Flare AMEL	Notice	NA	OAQPS
9/2	Technical Corrections – Portland Cement (AA signature)	Notice/FR	5734	OAQPS
9/3	Inadvertent Errors Memo – EGU GHG NSPS (New/Mods/Recon)	Memo	5448	OAQPS
9/3	Inadvertent Errors Memo – Carbon Pollution Guidelines (Existing)	Memo	5448.1	OAQPS
9/3	Inadvertent Errors Memo – CPP Federal Plan	Memo	5832	OAQPS
9/10	Primary Aluminum NESHAP	FR	5550	OAQPS
9/10	Inadvertent Errors Memo: Secondary Aluminum Production	Memo	5468	OAQPS
9/24	Brick and Clay NESHAP MACT	FR	5367	OAQPS
9/24	Title V Deer Park	Petition Res.	NA	OAQPS
9/29	Refinery NESHAP RTR	FR	5532	OAQPS
10/1	Ozone NAAQS	FR	5306	OAQPS
10/1	GHG Reporting – Oil & Gas (Subpart W)	FR	5761	OAP
10/5	Strat Ozone – Methyl Bromide 2016 CUE	FR	5789	OAP
10/15	Refrigerant Management Update	NPR	5820	OAP

To: McCabe, Janet[McCabe.Janet@epa.gov]
From: Janet McCabe
Sent: Wed 10/21/2015 4:44:52 AM
Subject: ECOS STEP McCabev5 clean
ECOS STEP McCabev5 clean.docx

ECOS-STEP Meeting
Wednesday, October 21, 1:45-2:15 pm

Introduction

- Thank you for the opportunity to speak to you today. As Bill Reilly mentioned in his keynote address this morning, the Clean Air Act has achieved substantial health and environmental benefits but, as we all know, there is still more to do.
- The first thing I want to do is thank you. Thank you for all of the work that you're doing at the state level. None of the progress we've made to date would have been possible without all of your efforts.
- And we know that each state is unique and each has a different set of challenges, different air quality issues, different economic drivers and goals, and geographies, which is why a "one-size-fits-all" approach doesn't work for every situation. That is why it is so important for us to work closely and collaboratively – because we understand the states are most knowledgeable about their environmental priorities, risks, and threats. Those of us who came to EPA from state or local government are especially mindful of the respective roles of our agencies, and how much we need to work together to reach our common goal of improved air quality and public health.
- And even though we might have different views sometimes about what the Clean Air Act requires, we share the goal of clean air for all Americans.
- And we are committed to working with you to ensure we are delivering environmental and public health protection to everyone in this country .

The State of Air Quality

- For more than 40 years, EPA's mission has been to protect the American public from harmful pollution, and the United States has seen tremendous success in cleaning up the air we breathe, the water we drink and the land where we live, work and play.
- Next month, we will celebrate the 25th anniversary of the Clean Air Act Amendments of 1990. The Amendments represented a renewed commitment to reducing pollution and attaining air quality improvements.
- Even 25 years ago, forward thinking policymakers knew the impacts of these Amendments were essential - reducing toxins to significantly improve health issues for American citizens, and adding protection for our lakes, parks and forests.
- You know the statistics--Since 1990, the US has seen a 28% population increase and a 41% increase in vehicle miles travelled. During that same period, though, we have also seen a 50% decrease in emissions of the six NAAQS pollutants – that's pretty incredible, and a testament to the effectiveness of the Clean Air Act Amendments.
- This is good news, but we know there is still more work to be done. Still too many people living in areas where air quality doesn't meet health standards, or where families in vulnerable neighborhoods are exposed to levels of air pollution that put them at risk. And more work to be done, for sure, to address the threat of climate change.
- October is Children's Health Month. There's no better time to think about the importance of what we are doing and to keep us moving forward. Actions

like the recent revisions to the ozone standard and the Agricultural Worker Protection Standard to protect children from pesticide exposure are two examples of steps we are taking to protect our children now and into the future.

Upcoming Priorities

- You are touching on a number of air program issues today and I'd like to briefly mention a few of our priorities for the coming months.

Climate Action

- A number of our priority actions come within the Climate Action Plan, so let me start with those. As you know, these programs also deliver significant air quality benefits as well.

Clean Power Plan

- One of these, as you might expect, is to work closely with states and stakeholders to begin implementing the Clean Power Plan. We have very much appreciated the chance to engage with ECOS on Clean Power Plan efforts to date, and hope that we can continue these discussions.
- Since issuing the final Clean Power Plan, EPA has continued extensive outreach to engage with states, territories, tribes, industry groups, community organizations, health and environmental groups, among others.
- These include constructive conversations with a variety of stakeholders – including ones like this with you.
- Since August, we have reached out to all 50 states, and every state has had multiple opportunities to hear from us and to ask questions.

- In addition to dozens of calls with states, tribes, communities, industry representatives, and elected officials, we have also held or participated in a number of widely-attended teleconferences about the Plan.
- These include the NACAA-AAPCA-ECOS technical teleconference series, which I'm really glad to see happening again; the calls have gone very well in large part because of the depth of the questions that you have been asking.
- EPA staff have responded to hundreds of questions about the final rule, and questions continue to come to us through meetings, the Clean Power Plan website, the media, Congressional staff and other venues, and we are doing our best to help everyone better understand the Clean Power Plan. We recognize the CPP is complex and new, and yet we have been impressed with how quickly states have shifted from basic questions about the contents of the rule to more in-depth questions about the implications of various choices they might make; we welcome this shift and look forward to more of these discussions.
- To help states and stakeholders understand the Clean Power Plan and to further support states' efforts to create plans that suit their needs, EPA has developed a variety of tools and resources, which are largely available on our website, and we remain committed to assisting states with development and implementation of their state plans.
- Many of you are also participating in meetings being convened by the likes of the Great Plains Institute, Bipartisan Policy Center, Georgetown Climate Center, Center for a New Energy Economy, Nicholas Institute, National

Governors Association and more. It really reflects how states are figuring out how the Plan relates to their states, as well as in working with other states.

- Also, many states have been holding stakeholder meetings, already, and getting input on the CPP. This is great progress, and I really commend you for getting these processes started.
- Two issues on which we've gotten a lot of interest and questions are the initial submittal—for states that intend to seek an extension for filing their plans—and the Clean Energy Incentive Program.
 - Soon, you can expect to see a **memo** that will lay out what states will need to put in the initial submittals that are due next September. This information should help clarify that the elements required for the initial submittal are really very straightforward are not intended to be a heavy lift for states, but rather reflect your preliminary activities to engage stakeholders in your state and begin to think about your options and the steps you will take to put your plans together.
 -
 - On the CEIP, we promised some additional opportunities for input on how that program will work. We're putting out a short document today that indicates that, in addition to the opportunity to comment on the proposed federal plan, we will also be holding a series of conference calls with stakeholder groups to continue conversations about CEIP in November and December. EPA will share background information and solicit feedback on a variety of CEIP topics. We are looking forward to discussing issues like:
 - criteria for eligible projects;

- how many allowances go to energy efficiency or renewable energy projects;
- distribution of allowances among states; and
- how state, tribes and territories for whom goals have not yet been established may be able to participate.
- Also this week, we are posting the first two of a number of training videos we plan to make available online. These videos are designed for a variety of audiences and will cover topics ranging from an overview to state plan components, multi-state plans, community considerations, and others in the coming weeks and months.
-
- Finally, I want to remind everyone that in August we also put out the proposed Federal Plan/Model rule.
- [The Federal Register office has let us know that all three rule packages will publish in the Federal Register this Friday, October 23.]

Publication begins the 90-day comment period on the proposed federal plan and model rule, which I know is of interest to you and your states. We're eager to hear what you think in written comments and at the four public hearings that we are planning to hold across the country in mid-November. **Methane**

- Beyond addressing carbon pollution from power plants, the President's Climate Action Plan also instructed EPA to address methane emissions; the White House announced the next steps in the Methane Strategy on January 14th, 2015.
- EPA's portion of the strategy includes both regulatory and voluntary approaches.

- In addition to reviewing the feedback and information we received in response to the series of white papers that we issued in 2014 for peer review and public comment, earlier this year we asked states and tribes to volunteer to talk with us about their experiences in regulating oil and gas sources.
- Our goal was to learn from work states and tribes were already doing to inform our upcoming proposal. Twelve states and three tribes participated in these discussions.
- In mid-August we proposed a suite of oil and gas rules and guidelines that will help combat climate change, reduce air pollution, and provide greater certainty to industry about permitting requirements. Comments are due on November 18.
- These actions will reduce emissions from this rapidly growing industry, and will help to ensure that development of these energy resources is safe and responsible.
- A number of states are already or are planning to regulate air pollution from the oil and natural gas industry, and these actions would not interfere with their efforts, if their requirements are not weaker than the federal rules.
- We are also developing a Natural Gas Star Methane Challenge program to provide a new way for oil and gas companies to make and track ambitious commitments to reduce methane.
- We expect to launch the Methane Challenge program by the end of the year.
- We also have several mobile source rules we will be working on in the next year as well:
 - HDV Phase 2 [final next spring]

- LDV Mid Term Evaluation [technical assessment report next June]
- Aircraft Endangerment Finding [ICAO meeting in early 2016]

Mention other voluntary programs and international work—the benefit they bring, the role that the private sector can play in climate work

Moving to Air Quality Work

Ozone NAAQS

- Another of our priorities is implementation of the new ozone NAAQS, which was announced earlier this month.
- This strengthened standard will improve public health protection across the country and provide the adequate margin of safety that is required by law and that the science supports.
- The Administrator’s decision to revise the standard was based on a review of thousands of scientific studies, consideration of the more than 430,000 public comments on the proposal, the advice of CASAC, and a review of the uncertainties that remain.
- I want to emphasize that the new standard is achievable. States will have the time and flexibility they need to plan for and meet the new standard; in fact, with rules that already exist, we expect that all but a few areas around the nation will meet it by 2025.
- We have made a lot of progress on ozone over the years, together as state and Federal partners. I think it’s pretty remarkable that more than 90 percent of the areas originally identified as not meeting the ozone standards set in 1997 now meet them.
- Recognizing that implementation starts now and that states need

implementation guidance and rules from EPA, we have provided an outline of how EPA will work with state, tribal, local and federal agencies to implement the updated standards in a way that maximizes common sense, flexibility and cost-effectiveness, while following the requirements of the Clean Air Act.

- We issued an *Implementation Memo* with the revised standards that outlines the agency's plans for addressing a variety of issues
- Here are some highlights of the Implementation Memo:
 - Guidance available to agencies;
 - The agency plans to propose rules and guidance over the next year to help states that have potential nonattainment areas implement the revised standards.
 - The agency also plans to update its Exceptional Events Rule, which outlines the requirements for excluding air quality data (including ozone data) from regulatory decisions if the data are affected by events outside an area's control, such as a wildfire or stratospheric intrusion.
 - In addition, EPA is developing guidance to address Exceptional Events Rule criteria for wildfires that could affect ozone concentrations. The agency anticipates receiving additional fire-related exceptional events demonstrations as climate change leads to increases in wildfires.
 - Designating areas;
 - As required by the Clean Air Act, EPA anticipates making attainment/nonattainment designations for the revised standards by late 2017; those designations likely will be based

on 2014-2016 air quality data.

- Background ozone:
 - We are aware about the concerns some have about background ozone levels.
 - It is unlikely that background ozone will affect a state's ability to meet the standard.
 - The Clean Air Act provides tools to help states with this issue.
 - EPA will hold a technical workshop as a forum for people to talk about background ozone.
- The Implementation memo touches on a number of other topics as well, including: permitting, interstate transport, wildfires, transportation planning and others.
- Moving forward on these issues will be one of my highest priorities over the next year.

CSAPR

- Speaking of interstate transport, we still have work to do there. In July, the U.S. Court of Appeals for the D.C. Circuit issued its opinion on the remaining issues raised with respect to the Cross State Air Pollution Rule (CSAPR), and EPA is pleased that the court decision keeps CSAPR in place. We are determining an appropriate further course of action in response to certain aspects of that opinion.
- Together with states and stakeholders, we have been working to develop a

path forward to improve ozone air quality and address transport for the 2008 ozone standards.

- EPA is also planning to develop and promulgate FIPs, if necessary, by issuing a proposal later this year. It is our intention that any federal rule developed to satisfy this obligation would provide ample opportunity for states to pursue alternatives through the SIP process.
- Under the CSAPR framework, we will be identifying emission reductions necessary to prevent upwind states from contributing significantly to the downwind air quality problems.
- We are working on assessing power sector NOx controls and ozone season NOx mitigation potential with attention to actions that are cost-effective and can be taken quickly. We've been sharing information with the states over the past year, and look forward to having a proposal out relatively soon.

Regional Haze

- We have worked hard together to implement the regional haze program and, with a few exceptions, the initial round of regional haze SIPs is nearly complete. We have some issues we are still working on in some states, but a lot of progress has been made.
- We've also been talking to you about the next phase of the regional haze program, and states have given us great input about things we can do to improve how the program works, and also provide more time for the next round of planning SIPs.

-

-

- We're working on a package of rule revisions that will include proposing to shift the plan submittal deadline to July 2021.
- We're also working on new guidance that will address the Reasonable Progress Guidelines and Reasonable Progress Goals.
- Draft guidance and/or rulemaking is expected early 2016.
-

State Workload

- I know that states have a lot on their plates, even if the plate in front of you at this stage of your lunch today isn't especially full at this point.
- I am sensitive to the ongoing need for EPA assistance in terms of outreach, responding to questions, offering training, and providing guidance, tools, and resources to states to help you get the job done.
- In conjunction with all of the various priority actions I've mentioned today, please know that EPA remains committed to providing those types of support to states.
- We have a lot of efforts planned or underway to provide support to states, but we also want to hear from you what types of products or other assistance would be most useful to you, so please share your ideas with us.

E-Enterprise

- OAR has been an active and enthusiastic participant in E-Enterprise since its beginning.

- OAR is committed to the long haul in actively participating in E-Enterprise governance and embracing the modernization of the business of environmental protection
- Many Air Related E-Enterprise projects underway
 - Combined Air Emissions Reporting scoping project
 - Accelerating Electronic Reporting for NESHAPS and NSPS
 - Village Green monitoring project
 - Advanced Monitoring integration strategy
 - Leak Detection and Repair
 - Leveraging the Clean Power Plan State Plan Electronic Collection System for SIPs
 - ePermitting scoping project
 - Direct Fuels e-reporting
- As these and other OAR projects move forward, we will utilize E-Enterprise joint governance to develop or modernize our programs, while ensuring that the input of other stakeholders is solicited and incorporated as well.

Closing

- Thank you again for the opportunity to talk with you today, and in the few minutes remaining I would like to hear some of your questions.

To: McCabe, Janet[McCabe.Janet@epa.gov]
From: Grundler, Christopher
Sent: Mon 10/19/2015 12:43:18 PM
Subject: Fwd: CARB comment letter
[CARB Comment - no attachments.pdf](#)
[ATT00001.htm](#)

Here u go

Christopher Grundler, Director
Office of Transportation and Air Quality
U.S. Environmental Protection Agency
202.564.1682 (Washington)
734.214.4207 (Ann Arbor)
www.epa.gov/otaq

Begin forwarded message:

From: "Yanca, Catherine" <yanca.catherine@epa.gov>
Date: October 19, 2015 at 8:02:10 AM EDT
To: "Grundler, Christopher" <grundler.christopher@epa.gov>, "Spears, Matthew" <spears.matthew@epa.gov>, "Moulis, Charles" <moulis.charles@epa.gov>
Cc: "Charmley, William" <charmley.william@epa.gov>
Subject: RE: CARB comment letter

Hi Chris,

Here is their comment letter. They also submitted a few attachments, not included here but I can send along if you like.

~Cay

From: Grundler, Christopher
Sent: Friday, October 16, 2015 10:25 PM
To: Spears, Matthew; Yanca, Catherine; Moulis, Charles
Cc: Charmley, William
Subject: Fwd: CARB comment letter

See request. Pls send to me. Monday is fine

Christopher Grundler, Director

Office of Transportation and Air Quality

U.S. Environmental Protection Agency

202.564.1682 (Washington)

734.214.4207 (Ann Arbor)

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Begin forwarded message:

From: "McCabe, Janet" <McCabe.Janet@epa.gov>

Date: October 16, 2015 at 9:53:13 PM EDT

To: "Grundler, Christopher" <grundler.christopher@epa.gov>

Subject: CARB comment letter

Chris--no rush, but could you please ask someone to send me the CARB comment letter. I thought I had it, but it's only 3 pages, so I don't think I have the whole thing.

Thanks,

JMc



Air Resources Board



Matthew Rodriguez
Secretary for
Environmental Protection

Mary D. Nichols, Chair
1001 I Street • P.O. Box 2815
Sacramento, California 95812 • www.arb.ca.gov

Edmund G. Brown Jr.
Governor

October 1, 2015

Administrator Gina McCarthy
U.S. Environmental Protection Agency
Air and Radiation Docket and Information Center, Mail Code: 28221T
1200 Pennsylvania Avenue, NW
Washington, DC 20460
Docket No. EPA-HQ-OAR-2014-0827

Administrator Mark R. Rosekind
U.S. Department of Transportation
National Highway Traffic Safety Administration
Docket Management Facility, M-30
1200 New Jersey Avenue, SE
Washington, DC 20590
Docket No. NHTSA-2014-0132

Dear Administrators McCarthy and Rosekind:

The California Air Resources Board (CARB) appreciates the opportunity to provide comments on the Notice of Proposed Rulemaking for the U.S. Environmental Protection Agency's (U.S. EPA) and the National Highway Traffic Safety Administration's (NHTSA) Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles - Phase 2, as published in the Federal Register on July 13, 2015.

Over the past two years, CARB staff has worked closely with the staff of U.S. EPA and NHTSA to develop the technical analyses intended to inform the stringencies of the federal Phase 2 proposal. We commend and appreciate your agencies' significant efforts to build on the success of current Phase 1 standards for the purpose of establishing a strong, national Phase 2 program, particularly one that will support California in achieving its unique climate and petroleum reduction targets.

After a thorough assessment by CARB's Phase 2 team of scientists and engineers, we have concluded, unfortunately, that the proposal falls short of the program needed in California. This should come as no surprise in light of my testimony at the August 18th federal hearing on the proposal in Long Beach, California. At that time, CARB staff was midway through its technical deep dive into the proposal. With that process complete, I

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our website: <http://www.arb.ca.gov>.

California Environmental Protection Agency

Administrator Gina McCarthy
Administrator Mark R. Rosekind
October 1, 2015
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now offer our detailed recommendations, which are attached, to strengthen the program and to accelerate opportunities to achieve climate benefits nationwide.

Overall, CARB believes the proposed federal Phase 2 rule misses opportunities to maximize greenhouse gas reductions and spur development of critical advanced technologies that can provide early climate benefit. These are especially important to California in meeting our 2030 greenhouse gas and petroleum use reduction goals. As proposed, the federal rule would provide less than half of the reductions needed for California to meet its 2030 targets. Furthermore, the proposal lacks any acknowledgement of the need for future national heavy-duty engine standards to reduce emissions of oxides of nitrogen (NOx), and, in fact, lacks adequate safeguards to protect against NOx increases in some heavy-duty vehicle applications, as noted in our more detailed comments.

While CARB's attached comments include significantly more detail and breadth than I provide here, I do want to highlight a few specific recommendations and areas for improvement.

1. **Strengthen the overall proposal and adopt the Alternative 4 timeline in order to deliver greater climate benefits earlier**

CARB strongly recommends that the federal agencies strengthen the overall proposal and adopt the Alternative 4 timeline, rather than adopt the proposed Alternative 3. While the two alternatives are nearly identical in terms of technological feasibility and payback periods for fuel efficient technologies, Alternative 4 accelerates full program phase-in by three years, from 2027 to 2024, and as discussed below, can be strengthened in overall stringency.

By 2030, Alternative 4 as proposed would provide about four million metric tons more cumulative greenhouse gas benefits in California than Alternative 3, and together with Phase 1 would reduce petroleum use from the medium- and heavy-duty sector by about 22 percent. Yet, this still is not enough, and even more needs to be done to strengthen the federal Phase 2 proposal, such as including an increase in the engine-only standard, as described in our next recommendation. Overall, a strengthened Alternative 4 would provide an important step toward reaching Governor Brown's climate goals and 50 percent petroleum reduction target for the transportation sector.

2. Increase stringency of the proposal, via tighter engine-only standards and consideration of all appropriate technologies

As proposed, the Phase 2 tractor and vocational engine standards are expected to achieve only a modest 4 percent fuel efficiency improvement beyond what the current Phase 1 program requires. CARB staff recommends that the tractor engine standard stringency be increased to achieve at least a seven percent reduction in carbon dioxide emissions versus a model year 2017 baseline engine, in conjunction with a corresponding increase in the whole vehicle standards, to levels that capitalize on the full emission reduction potential of efficiency improving technologies. Recent work by the Southwest Research Institute, the U.S. Department of Energy's SuperTruck teams, and Cummins, the largest manufacturer of heavy-duty truck engines, all indicate the feasibility of engine greenhouse gas reductions in the Phase 2 timeframe at levels more than twice the levels being proposed.

Additional areas in which the proposal misses opportunities to maximize climate benefits include the lack of consideration of aerodynamic improvements and electrified accessories for vocational vehicles, tighter standards for pickup trucks and vans and trailers, and limitations on the global warming potential of air conditioning refrigerants.

3. Include a greater reliance on advanced technologies

The Phase 2 proposal lacks sufficient stringency to drive market development of battery electric or fuel cell electric technologies. The proposal assumes only a modest level of hybrid technology and no use of battery electric or fuel cell electric technology, is generally pessimistic on the future of battery electric and fuel cell electric vehicles, and, in fact, eliminates the advanced technology credits included in the Phase 1 program that were intended to encourage development of these technologies. This is contradictory to CARB's position that the early deployment of advanced technologies is the foundation of California's pathway to achieving both its climate and air quality targets.

Furthermore, without any significant reliance on advanced technologies built into the proposed standards, CARB estimates that projected increases in truck activity will completely overtake projected greenhouse gas reductions by 2043 (with respect to the 2010 baseline), resulting in greenhouse gas levels from medium- and heavy-duty trucks in 2050 that are about six percent higher than 2010 levels. To actually offset the expected activity growth, advanced, near-zero emission technologies must be a significant part of the long-term solution.

4. Address projected diesel PM increases due to the increase use of auxiliary power units

The proposal encourages manufacturers to increase the use of auxiliary power units (APUs) to reduce idling. While CARB supports reducing such unnecessary idling, U.S. EPA estimates that this action could increase diesel particulate matter emissions throughout the rest of the country by nearly 10 percent, thus exacerbating public health issues associated with exposure to toxic diesel particulate matter. This is one of the largest public health problems tackled by CARB in recent decades, and even after an extensive control program in California, diesel particulate matter remains responsible for about 60 percent of the known risk from toxic air contaminants. As such, CARB supports the development of a federal rule that requires diesel particulate filters on APUs, concurrent with the Phase 2 program, similar to requirements already in place in California.

5. Commit to future NOx control

California needs dramatic further reductions in NOx emissions beyond what our current programs will achieve by 2031 to attain health-based standards for ozone and fine particulate matter. Reaching these attainment levels in California's South Coast Air Basin will require an approximate 70 percent reduction in NOx from today's levels by 2023, and an overall 80 percent reduction in NOx by 2031. CARB expected the proposal to include a commitment from U.S. EPA to begin efforts to develop lower, mandatory NOx standards for heavy-duty engines and vehicles. Federal action is especially needed for the largest heavy-duty trucks that frequently cross state lines and therefore cannot be effectively regulated by California alone. CARB will begin development of lower, mandatory NOx engine standards in 2017, and will also petition U.S. EPA to establish lower, federal NOx engine standards. If U.S. EPA fails to initiate a timely rulemaking, CARB will continue with its efforts to establish a California-only standard.

6. Address the potential for an increase in emissions from improperly designed hybrid systems and from the use of non-road engines

CARB previously submitted to U.S. EPA comments requesting a supplemental NOx check to safeguard against NOx increases from improperly designed heavy-duty hybrid systems; the current proposal does not address this issue or incorporate CARB's recommendations. At a minimum, CARB recommends that the proposal specify the consequences for NOx emissions increases identified during powertrain testing of hybrid systems, such as prohibiting manufacturers from counting high-NOx hybrid vehicles towards Phase 2 fleet averages.

Administrator Gina McCarthy
Administrator Mark R. Rosekind
October 1, 2015
Page 5

In addition, CARB strongly urges U.S. EPA and NHTSA to include appropriate safeguards to protect against possible criteria pollutant increases associated with allowing non-road engines to be used in on-road heavy-duty hybrid systems.

CARB has appreciated the opportunity to work collaboratively with both U.S. EPA and NHTSA in developing the federal Phase 2 proposal. My hope is that U.S. EPA and NHTSA will seriously consider our comments in the spirit they are provided: as an opportunity for our agencies to continue our collaborative efforts to finalize a strong, national Phase 2 program that maintains this country's global leadership role in addressing climate change.

Without such a national program, it is ultimately CARB's responsibility to ensure the Phase 2 standards assist California in meeting its climate and petroleum reduction goals, and, therefore, may consider California-only elements as part of CARB staff's Phase 2 proposal expected in the mid-2017 timeframe.

Again, thank you for the opportunity to provide comments. If you have any questions regarding our comments, please contact me or Mr. Michael Carter, Chief of the Mobile Source Regulatory Development Branch, at (626) 575-6632, or via email at Michael.Carter@arb.ca.gov.

Sincerely,



Mary D. Nichols
Chair

Attachment

cc: See next page

Dear Administrators McCarthy and Rosekind

Page 6

cc: Mr. Richard W. Corey
Executive Officer

Dr. Alberto Ayala
Deputy Executive Officer

Mr. Erik White, Chief
Mobile Source Control Division

Mr. Michael Carter, Chief
Mobile Source Regulatory Development Branch
Mobile Source Control Division

Ms. Kim Heroy-Rogalski, Manager
Strategic Planning and Development Section
Mobile Source Control Division

Mr. Stephan Lemieux, Manager
On-Road Heavy-Duty Diesel Section
Mobile Source Control Division

ATTACHMENT

California Air Resources Board's (CARB) Specific Comments on Greenhouse Gas Emissions (GHG) Standards and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles, Phase 2 Proposed Rules

CARB staff appreciates this opportunity to comment on U.S. Environmental Protection Agency's (U.S. EPA) and the National Highway Traffic Safety Administration's (NHTSA) proposed Phase 2 Heavy-Duty Program that establishes both GHG emission standards and fuel efficiency standards for new heavy-duty vehicles, the engines that power such motor vehicles, and trailers hauled by combination tractors.

CARB staff has comments related to many aspects of the proposed Phase 2 rules which are presented below and organized as follows:

- California's need for GHG reductions – background on the legislative and executive drivers for swift action to reduce GHGs in California;
- Summary of CARB's work on Phase 2 – summary of CARB staff's work with U.S. EPA and NHTSA during development of the proposed Phase 2 standards;
- CARB recommendations on stringency –
 1. Benefits of Alternative 4 for California
 2. Legal Authority to Adopt Alternative 4
 3. Tractor and Vocational Engine Standards
 4. Class 7 and 8 Combination Tractor Vehicle Standards
 5. Vocational Vehicle Standards
 6. Class 2b/3 Pickups and Van Standards
 7. Trailer Standards;
- Comments on proposed Phase 2 provisions – credit provisions, hybrid vehicle provisions, battery electric vehicle (BEV) provisions, and how fuel cell electric vehicles (FCEV) are characterized;
- Comments on proposed compliance, certification, and enforcement provisions - on-board diagnostics (OBD), labelling, test procedures, the GHG emission model (GEM), and the use of non-road engines;
- Comments on other proposed amendments – baseline scenario, gliders, tire-related comments, refrigerant –related comments, solar control, vehicle speed limiter (VSL), and in-use standards;
- Comments on the described impact on fuel consumption, GHG emissions, and climate change, including how natural gas vehicles are accounted for, and emission benefit estimates;

- Comments on non-GHG emissions and their associated effects, such as oxides of nitrogen (NO_x) and particulate matter (PM), including our recommendation that Phase 2 include requirements to control toxic diesel PM emissions from auxiliary power units (APUs), the use of which Phase 2 is expected to increase;
- Comments on estimated cost and economic impacts; and
- Comments on definitions and miscellaneous topics.

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California's Need for GHG Reductions

Support Comment

Affected document(s): GHG Standards and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles, Phase 2 (Phase 2 Proposed Rules)

Affected pages: 40149-40150

Comment – California's need for GHG reductions

As a leader in climate action, California is committed not only to reducing GHG emissions, but also to advancing the principle that economic prosperity and environmental sustainability go hand-in-hand. The release of the latest edition of the California Greenhouse Gas Emission Inventory in late June 2015 shows that total GHG emissions in California fell by 1.5 million metric tons (MMT) in 2013 from 2012, even while the economy grew 2 percent, a rate greater than the national average.¹ These trends convincingly demonstrate that California can grow its economy, continue to fight climate change, and remain on a sustainable trajectory towards a clean energy future. This recent success, however, does not relieve California of its responsibility to implement even more ambitious measures to significantly reduce GHG emissions.

In fact, California has in place a unique set of directives to expand upon our success in reducing climate emissions and to transform the State's transportation system. These directives require California to:

- Reduce GHG emissions to 1990 levels by 2020;
- Reduce GHG emissions 40 percent from 1990 levels by 2030;
- Reduce GHG emissions 80 percent from 1990 levels by 2050;
- Reduce petroleum use in cars and trucks by up to 50 percent by 2030;

¹ (CARB, 2015a) California Air Resources Board, "California Greenhouse Gas Emissions for 2000 to 2013 – Trends of Emissions and Other Indicators," 2015, <http://www.arb.ca.gov/cc/inventory/pubs/reports/ghg_inventory_trends_00-13.pdf> and "California greenhouse gas inventory shows state is on track to achieve 2020 AB 32 target," June 30, 2015, <<http://www.arb.ca.gov/newsrel/newsrelease.php?id=740>>.

- Produce at least 50 percent of electricity from renewable sources by 2030; and
- Develop and implement a plan to reduce emissions of short-lived climate pollutants, including black carbon.

Most recently on July 8, 2015, at the Climate Summit of Americas in Toronto, Canada, California Governor Edmund G. Brown, Jr. used his keynote remarks to urge other states and provinces to join with California in the fight against climate change in an effort to spur more aggressive action at the national level. California has already joined the growing lists of states and provinces from around the world in a first-of-its-kind agreement, called the “Under 2 MOU,” to limit global warming to less than 2 degrees Celsius. This MOU provides a template for nations to follow as work continues toward an international agreement at the United Nations Climate Change Conference in Paris later this year.

CARB staff recognizes that the federal Phase 2 standards presented in the Notice of Proposed Rulemaking (NPRM) will play a crucial role in California’s integrated and comprehensive strategy to further reduce GHG emissions. CARB staff estimates indicate the NPRM proposal, coupled with the federal Phase 1 standards already in place, would reduce California trucking sector GHG emissions 31 percent by 2050 compared to baseline 2010 levels.

With successful policies already in place, California has started down the road to delivering significant GHG reductions through the deployment and use of zero-emission vehicle technologies, cleaner low carbon fuels, more renewable energy, and ongoing improvements in system-wide efficiencies. The additional GHG reductions resulting from the federal Phase 2 standards represent an important “down payment” that will increase momentum in meeting our ambitious climate goals, particularly for the 2030 petroleum reduction target, thus facilitating the decarbonization of California’s economy and energy sources.

While every major economic sector in the State will play a role in this effort, the medium- and heavy-duty transportation sector provides key opportunities to advance progress in stabilizing climate emissions and improving freight efficiency. For example, CARB’s Assembly Bill 32 (the California Global Warming Solutions Act of 2006) Scoping Plan Update includes more stringent Phase 2 GHG standards as one of the

many strategies to assist in meeting California's climate goals.² The Phase 2 standards are also identified as a measure in CARB's *Sustainable Freight: Pathways to Zero and Near-Zero Emissions – Discussion Document*, which details CARB's efforts, along with other State of California transportation and energy agencies, to develop a comprehensive and integrated proposed plan for a sustainable State freight system.³

California's committed leadership in reducing GHG emissions also extends to short-lived climate pollutants, which have been shown to account for 30-40 percent of global warming to date. The relative potency of methane, black carbon, fluorinated gases, and tropospheric ozone can be tens, hundreds, and up to thousands of times greater than that of CO₂. The effects of short-lived climate pollutants are especially strong in the near-term: their impact on global warming more than doubles to almost 40 percent of California's Greenhouse Gas Emission Inventory when "global warming potentials" are computed over 20 years, instead of 100 years.⁴

To address these climate pollutants, CARB has led a collaborative process with other State agencies and local air districts to develop California's comprehensive and aggressive Short-Lived Climate Pollutant Reduction Strategy, as directed by Senate Bill 605 (Lara; Chapter 523, Statutes of 2014). With the release of the draft strategy on September 30, 2015, this effort engages the scientific and legislative communities to identify additional strategies the State will take to build upon existing programs to further reduce these GHGs for an immediate beneficial impact on climate change.

To access the Short-Lived Climate Pollutant Reduction Strategy and additional information on California's research projects and activities related to reducing short-term climate pollutants, please see: <http://www.arb.ca.gov/cc/shortlived/shortlived.htm>.

² (CARB, 2014a) California Air Resources Board, "First Update to the Climate Change Scoping Plan," May 2014,

<http://www.arb.ca.gov/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf>.

³ (CARB, 2015b) California Air Resources Board, "Sustainable Freight – Pathway to Zero and Near-Zero Emissions," April 2015, <<http://www.arb.ca.gov/gmp/sfti/sustainable-freight-pathways-to-zero-and-near-zero-emissions-discussion-document.pdf>>.

⁴ (CARB, 2014b) California Air Resources Board, "Reducing Short-Lived Climate Pollutants in California," September 2014, <http://arb.ca.gov/cc/shortlived/slcp_booklet.pdf>.

Summary of CARB's Work on Phase 2

Neutral/Provide Additional Information Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40141-40142, 40145-40146

Comment – Process/summary of CARB's work on Phase 2

As the only state in the nation with authority under the Clean Air Act (CAA) to develop its own motor vehicle emission standards, California strives to harmonize its standards with the federal standards as much as possible to achieve a comprehensive, unified national program, while ensuring that California's needs for emission reductions are met.

Over the past two years, CARB staff has closely coordinated with U.S. EPA and NHTSA to develop the technical analyses that inform the stringency of the proposed federal Phase 2 standards. CARB staff would support a harmonized national program, provided it is sufficiently stringent to meet California's significant need to reduce climate emissions from the trucking sector. While CARB staff is fully committed to continuing to work with U.S. EPA and NHTSA to strengthen the federal proposal, we are also prepared to introduce a California proposal that includes elements that move beyond the NPRM proposal if necessary to address California's unique climate needs. Detailed comments addressing specific areas in the NPRM proposal that CARB staff recommends strengthening are included in this submittal package.

In addition to its diligent coordination efforts with U.S. EPA and NHTSA, CARB staff also engaged in complementary research efforts and activities to inform evaluation of the federal Phase 2 proposal, as well as possible development of more stringent California-only elements. These activities and research efforts are summarized below.

Technology Assessments

CARB staff has developed technology assessments for a variety of mobile source categories, including trucks and buses, and fuels. While not all the assessments have yet been released for public comment, each assessment evaluates the current state

and projected development of technologies and fuels, and staff presented draft findings from each of the assessments at workshops in September 2014.⁵ For each technology, the assessment includes its description, its suitability in different applications, current and anticipated costs at widespread deployment (where available), and emissions levels.

In June 2015, the Draft Technology Assessment: Engine/Powerplant and Drivetrain Optimization and Vehicle Efficiency was released for public comment. This draft assessment identifies engine and vehicle technologies that can reduce fuel consumption and GHG emissions from class 2b through class 8 heavy-duty vehicles with a gross vehicle weight rating (GVWR) of greater than 8,500 pounds (lbs). The technologies discussed in the assessment are the same as or similar to those evaluated by U.S. EPA and NHTSA as part of the federal Phase 2 regulatory development process. The Draft Technology Assessment: Engine/Powerplant and Drivetrain Optimization and Vehicle Efficiency may be accessed from CARB's web page at: http://www.arb.ca.gov/msprog/tech/techreport/epdo_ve_tech_report.pdf.

In developing the assessments, CARB staff conducted an extensive literature search of current, emerging, and advanced technologies using published reports, research studies, and conversations with technology experts. CARB staff also recognizes that both U.S. EPA and NHTSA have sponsored new research in support of the proposed Phase 2 standards, and is using this publically available research to reevaluate the fuel consumption reduction potential of the technologies discussed in the Draft Technology Assessment: Engine/Powerplant and Drivetrain Optimization and Vehicle Efficiency.

Aerodynamic Drag Reduction Technologies Testing for Heavy-Duty Vocational Vehicles and Trailer Configurations

Various aerodynamic drag reduction technologies have been assessed and proven to reduce fuel consumption, particularly for vehicles that operate at higher speeds. To further reduce fuel consumption in the heavy-duty vehicle vocational sector, CARB staff evaluated potential opportunities to use aerodynamic technologies in the vocational vehicle sector that are already in use in the long-haul tractor trailer sector. Through literature reviews and stakeholder discussions, CARB staff realized the dearth of data available on aerodynamic technology utilization on vocational vehicles.

⁵ (CARB, 2014c) California Air Resources Board, Technology and Fuels Assessments Workshop Presentations, September 2014, <<http://www.arb.ca.gov/msprog/tech/presentation.htm>>

To help fill this data gap, CARB funded a study through the National Renewable Energy Laboratory (NREL), in close coordination with U.S. EPA, to evaluate the fuel consumption reduction potential of various aerodynamic technologies on heavy-duty vocational vehicles and pup trailers. In this study, CARB contracted NREL to perform coastdown and on-road test runs, with and without aerodynamic devices such as skirts, front fairings, and wheel covers, on vocational vehicles. Testing on vocational vehicles is complete, and the results are discussed further in Comment – Vocational Aerodynamics: Credits for aerodynamic devices on vocational box trucks (page 44 of this document).

To assist U.S. EPA in its testing and data-gathering efforts, CARB also funded NREL to quantify the fuel consumption reduction potential of aerodynamic technologies on pup trailers. As of September 2015, this testing is underway but not yet complete. The pup trailer testing component consists of five coastdown test configurations: 1) baseline: tractor, two pups, no aerodynamic improvements; 2) trailer side skirts on front trailer only; 3) trailer side skirts on rear trailer only; 4) trailer side skirts on both trailers; and 5) trailer side skirts on both trailers and an advanced trailer tail on the rear trailer only.

CARB staff is submitting a draft report with the test results on the completed vocational vehicle testing, prepared by NREL, with its formal comments on the proposed Phase 2 provisions for vocational aerodynamics. As discussed further in Comment – Vocational Aerodynamics: Credits for aerodynamic devices on vocational box trucks (page 44 of this document), the testing results demonstrate that aerodynamic technologies could provide fuel consumption reduction benefits in vocational vehicles under many operating conditions.

California Phase 2 Symposium

On April 22, 2015, CARB staff hosted a symposium to discuss California's coordination efforts with U.S. EPA and NHTSA to develop the proposed federal Phase 2 standards. Representatives from environmental government agencies, engine manufacturers, component suppliers, environmental policy and technical research organizations, and trucking fleets participated in panel discussions to present the latest information on heavy-duty engine and vehicle technology options, including their associated emission reduction potential and costs, expected for use in the post-2020 timeframe to reduce fuel consumption and improve tractor-trailer efficiency.

At the symposium, CARB staff discussed the magnitude of GHG reductions still needed in California to achieve its climate goals, how the proposed Phase 2 standards fit within California's overall strategy to achieve those goals, and the critical need to ensure that California maintains its progress in reducing NOx emissions while further reducing GHG emissions.

Overall, the symposium provided participants opportunities to share and discuss their diverse perspectives. CARB staff highly values the symposium presentations and resulting dialogues and used the materials to help inform its evaluation of the proposed federal Phase 2 standards. The symposium presentations may be accessed from CARB's web page at:

http://www.arb.ca.gov/msprog/onroad/caphase2ghg/presentations/caphase2ghg_symposium_presentations.htm. CARB staff will also use the materials as it develops its own Phase 2 program, expected in 2017.

CARB Recommendations on Stringency

Comments on Proposed Final GHG and Fuel Consumption Standards for Heavy-Duty Engines and Vehicles and on Feasibility Assessments and Conclusions

Overall Benefits of Alternative 4 in California

Oppose/Requested Change Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40397 - 40406

Comment – GHG emissions reductions of proposed regulation in California

CARB staff consulted with both U.S. EPA and NHTSA throughout the development of the proposed federal Phase 2 Heavy-Duty Program and fully recognizes the potential benefits that would result should CARB harmonize California's future Phase 2 GHG regulation with the proposed Phase 2 rulemaking, namely, nationwide consistency for engine and vehicle manufacturers.

However, as explained in further detail below, CARB staff believes that U.S. EPA and NHTSA's proposed adoption of emission standards corresponding to "Alternative 3" does not adequately serve California's needs to reduce both greenhouse gas emissions and petroleum usage from heavy-duty vehicles, and therefore urges its federal partners to adopt the emission standards corresponding to the "Alternative 4" option.

We recommend Alternative 4 be the preferred standard across all vehicle categories – tractors, (see comment on page 30), vocational vehicles (see comment on page 36), pickups and heavy-duty vehicles (see comment on page 52) and trailers (see comment on page 57), and in fact in several instances recommend tightening the final stringency also. We recommend tighter standards for tractor and vocational engines as well. In general, CARB staff believes that the NPRM is overly pessimistic about the outlook for the implementation of advanced technologies such as BEVs and FCEVs, as well as the ability of engine and truck manufacturers to engineer solutions that are needed to meet global GHG goals. Generally, CARB staff believes that U.S. EPA and NHTSA should be more willing to push the technology envelope, and have confidence in the ability of industry to meet far reaching environmental goals. As discussed at length in other comments, we believe that more stringent standards for both compression ignition and spark-ignited engines and vehicles are appropriate and could be met in a cost-effective

manner. Our recommended reinstitution of Advanced Technology Credits would make Alternative 4 even more attractive and attainable. The projected balances of Phase 1 credits, discussed further below, supports our belief that the engine and truck industry can and will do its part to curb global GHG emissions if more stringent standards are set.

The benefits of adopting the Alternative 4 standards across all vehicle categories are critical to California for meeting our GHG and petroleum reduction targets for 2030 and 2050.⁶ Alternative 4 standards would result in an additional 4 MMT carbon dioxide (CO₂) benefit by 2030 in California which is equivalent to removing about 3,300 class 8 long-haul tractor-trailers off the road.⁷ This reduction would be a critical first step towards California meeting its goal of reducing petroleum use by 50 percent in 2030.

Adopting Alternative 4 standards across all vehicle categories would also result in the Phase 2 program being fully phased in by 2024 (by 2025 for pickups and vans), three years earlier than if Alternative 3 standards are adopted. This would allow manufacturers to take action on reducing NOx emissions from the heavy-duty vehicles addressed in this rulemaking in a timelier manner. This is especially important since heavy-duty vehicles are responsible today for one-third of California's NOx emissions. The South Coast Air Basin will need nearly a 90 percent reduction in heavy-duty vehicle NOx emissions by 2031 from 2010 levels to attain the 2008 National Ambient Air Quality Standards (NAAQS) for ozone. Additionally, on November 25, 2014, U.S. EPA issued a proposal to strengthen the ozone NAAQS. If a change to the ozone NAAQS is finalized, California and other areas of the country will need to identify and implement measures to reduce NOx as needed to complement federal emission reduction measures.

Alternative 4 vs. Alternative 3 Emission Benefits

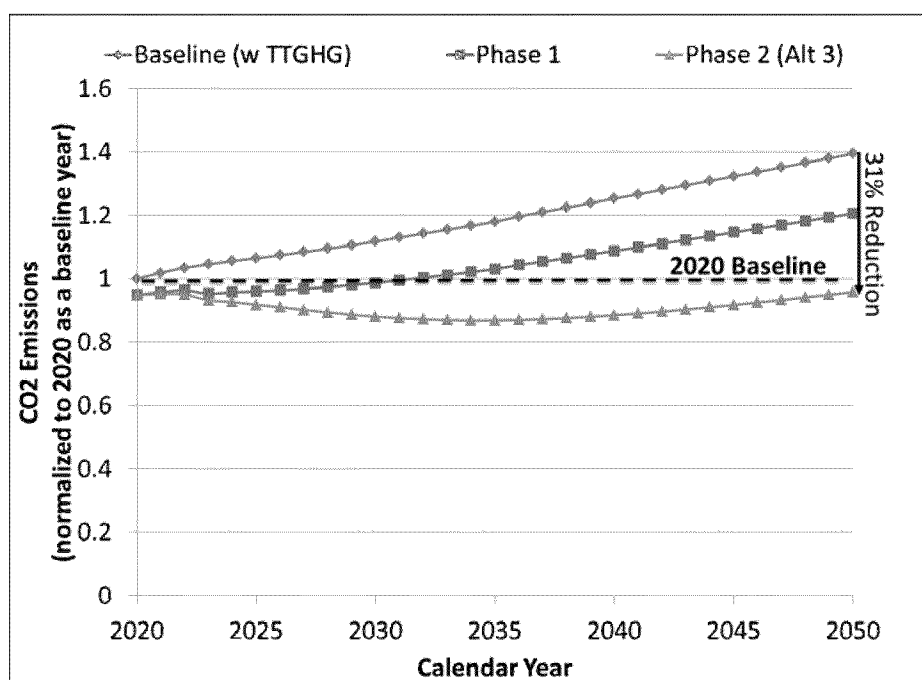
This comment provides an overview of the emissions benefits from the proposed regulation in California. Trucking operations in California differ substantially from the national average. Trucks that are operated primarily in California are retained by fleets

⁶ Assembly Bill 32: Reduce GHG emissions to 1990 levels by 2020.; Executive order B-32-15: Reduce GHG Emissions to 40 percent below 1990 levels by 2030; Executive order S-21-09: Reduce GHG emissions to 80 percent below 1990 levels by 2050; Governor Brown's inaugural address: Reduce petroleum use in cars and trucks in California by up to 50 percent by 2030

⁷ Assuming tractor meets baseline emission level of 88 g CO₂/ton-mile; payload of 38,000 lbs; travels 120,000 miles/year over 6 year period (2024 to 2030).

longer than the national average.⁸ In addition, the California trucking market is segmented, with national, regional and local fleets all competing in different segments of the goods movement economy; and hence it has a lower fraction of long-haul freight truck traffic as compared to national truck activity.⁹ This leads to a different vehicle fleet mix, vehicle age, and vehicle miles traveled (VMT) profiles than the national average. California's emissions model, EMFAC2014 (v1.0.7), reflects these California-specific factors, and is used to estimate the GHG emissions impact of the proposed rule as applied to medium and heavy-duty vehicles operating in California.

Figure 1: Statewide On-Road GHG Emissions (Normalized to 2020 as a Baseline year) from Phase 2 Regulated Vehicles: without Regulation (Baseline including CARB Tractor-Trailer Regulation), with the Phase 1 Regulation, and with the Alternative 3 of Phase 2 Regulation



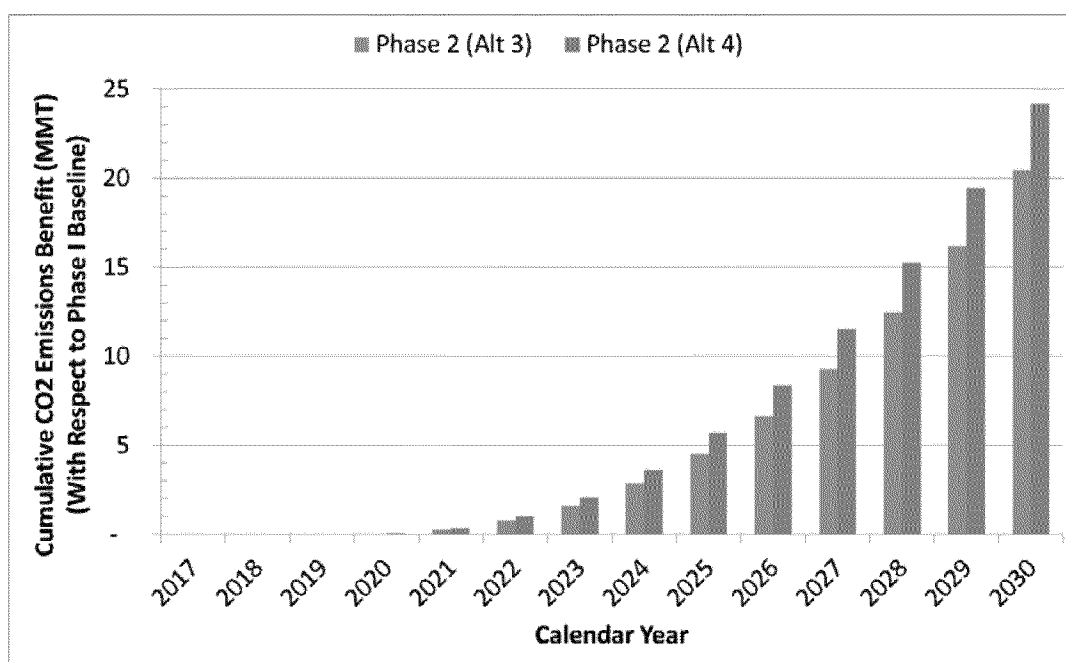
Using the model year (MY) specific percent reductions in CO₂ emission rates, staff assessed the emissions impact of the proposed regulation under both alternative 3 and 4 scenarios. Figure 1 shows the impact of the Phase 1 and Phase 2 (Alternative 3)

⁸ United States Census Bureau, "Vehicle Inventory and Use Survey (2002)," available at: <http://www.census.gov/svsd/www/vius/products.html>.

⁹ Id.

regulations on GHG emissions from affected vehicles.¹⁰ Results show a combined reduction of ~31percent in GHG emissions by 2050. Furthermore, staff analysis shows that as compared to alternative 3, alternative 4 would achieve an additional 4 MMT cumulative benefit in CO₂ emissions by 2030 (Figure 2). If Alternative 4 is adopted, Phase 1 and 2 together would achieve approximately a 22 percent reduction in petroleum use from the medium- and heavy-duty sector in 2030. This reduction would be a first step towards reaching the California Governor’s goal of up to a 50 percent reduction in petroleum use by 2030. As shown in Figure 1, due to the relatively fast growth of freight activity in California and at California ports (which handle roughly 40 percent of the nation’s freight flow), GHG emissions from the regulated trucks will start increasing in 2035. Therefore, achieving California’s mid- and long-term climate change targets will require additional steps such as broader use of renewable fuels, increasing use of zero-emission technologies, and increasing operational efficiencies.

Figure 2: Statewide Cumulative On-Road CO₂ Emissions Benefit from the Alternative 3 and Alternative 4 of Phase 2 Regulation



¹⁰ The affected EMFAC vehicle categories by Phase 1 and 2 regulations are heavy-duty trucks and buses exceeding 8,500 pounds GVWR.

Legal Authority to Adopt Alternative 4

Legal Authority

Alternative 4 is consistent with U.S. EPA's authority to promulgate GHG emission standards under the federal CAA, and with NHTSA's authority to promulgate fuel efficiency standards under the Energy Independence and Security Act (EISA).

Alternative 4 is Consistent with U.S. EPA's Statutory Authority

U.S. EPA is promulgating the proposed Phase 2 greenhouse gas emission standards pursuant to the statutory authority of Title II of the federal CAA, and specifically sections 202(a)(1) and (2), sections 202(d), 203-209, 216, and 301 (42 U.S.C. 7521 (a)(1) and (2), 7521(d), 7522-7543, 7550, and 7601).

Alternative 4 is consistent with the statutory provisions applicable to U.S. EPA's determination of the requisite lead time requirements associated with the proposed greenhouse gas emission standards. CAA section 202(a)(2) [42 U.S.C. § 7521(a)(2)] provides that "[a]ny regulation prescribed under paragraph (1) of this subsection (and any revision thereof) shall take effect after such period as the Administrator finds necessary to permit the development and application of the requisite technology, giving appropriate consideration to the cost of compliance within such period."

Courts interpreting section 202(a) of the CAA have recognized that Congress intended U.S. EPA to rely upon projected future developments and advances in pollution control technology in establishing emission standards, and expected U.S. EPA to "press for the development and application of improved technology rather than be limited by that which exists today." *Natural Resources Defense Council v. U.S. EPA*, 655 F.2d 318, 328 (D.C. Cir. 1981) (*NRDC*). The *NRDC* court noted that a longer lead time "gives the U.S. EPA greater scope for confidence that theoretical solutions will be translated successfully into mechanical realizations",¹¹ and further stated that "the presence of substantial lead time for development before manufacturers will have to commit themselves to mass production of a chosen prototype gives the agency greater leeway to modify its standards if the actual future course of technology diverges from expectation." (*Id.*) The court concluded:

¹¹ *Id.* at 329.

“We think that the U.S. EPA will have demonstrated the reasonableness of its basis for prediction if it answers any theoretical objections to the [projected control technology], identifies the major steps necessary in refinement of the [projected control technology], and offers plausible reasons for believing that each of those steps can be completed in the time available.”¹²

In this NPRM, U.S. EPA and NHTSA have set forth a broad range of compliance strategies and technologies that they anticipate engine and vehicle manufacturers will utilize in order to comply with the emission standards associated with both Alternatives 3 and 4. Such compliance strategies and technologies vary from well-established control technologies that are currently widely available (essentially “off-the-shelf” technologies) to control technologies that are only utilized in certain industry segments or that will likely require substantial development before they will be commercially available on a widespread basis throughout the industry (e.g., Rankine-cycle engines and strong hybrid pickups and vans).

As demonstrated below, CARB staff believes that for each regulated category of engines and vehicles, U.S. EPA and NHTSA have identified specific technologies that will be commercially available and that will enable manufacturers to comply with the proposed emission standards within the time frames associated with Alternative 4.

In *NRDC*, the court upheld U.S. EPA’s PM standards for MY 2005 light-duty diesel vehicles that U.S. EPA had promulgated in 2000. The court stated:

“Given this time frame, we feel there is substantial room for deference to the EPA’s expertise in projecting the likely course of development. The essential question in this case is the pace of that development, and absent a revolution in the study of industry, defense of such a projection can never possess the inescapable logic of a mathematical deduction.”¹²

In this rulemaking action, Alternative 4 provides manufacturers of heavy-duty engines and heavy-duty vehicles approximately *eight years of lead-time* to develop and apply technologies needed to comply with the most stringent greenhouse emission standards. This time frame is 60 percent longer than the time frame considered by the *NRDC* court, and in light of the extensive information discussed in this NPRM regarding the numerous control technologies that manufacturers are anticipated to utilize to comply

¹² *Id.* at 331-32. *Accord, Husqvarna AB v. Environmental Protection Agency*, 254 F.3d 195, 201 (D.C. Cir. 2001) and *National Petrochemical & Refiners Association v. Environmental Protection Agency*, 287 F.3d 1130, 1136 (D.C. Cir. 2002).

with the proposed standards, their capability of reducing GHG emissions, current states of development, and identification of the major steps needed to refine those technologies for implementation in MY 2024 engines and vehicles, it is clear that Alternative 4 is consistent with the lead time requirements of section 202(a)(2) of the CAA (42 U.S.C. 7521 (a)(2)).

CAA section 202(a)(2) also requires U.S. EPA to consider the cost of compliance of regulations promulgated pursuant to the authority of CAA section 202(a). “Any regulation prescribed under paragraph (1) of this subsection (and any revision thereof) shall take effect after such period as the Administrator finds necessary to permit the development and application of the requisite technology, giving appropriate consideration to the cost of compliance within such period.”

In *Motor and Equip. Mfrs Assoc. v. EPA*, 627 F.2d 1095 (D.C. Cir. 1979), (*MEMA I*), the court addressed the cost of compliance issue in reviewing a challenge to U.S. EPA’s issuance of a waiver to California. The court found:

Section 202’s “cost of compliance” concern, juxtaposed as it is with the requirement that the Administrator provide the requisite lead time to allow technological developments, refers to the economic costs of motor vehicle emission standards and accompanying enforcement. See S. Rep. No. 1922, 89th Cong., 1st Sess. 5-8 (1965); H.R. Rep. No. 728 90th Cong., 1st Sess. 23 (1967), U.S. Code Cong. & Admin. News 1967, p. 1938. It relates to the timing of a particular emission control regulation rather than to its social implications. Congress wanted to avoid undue economic disruption in the automotive manufacturing industry and also sought to avoid doubling or tripling the cost of motor vehicles to purchasers. It therefore requires that emission control regulations be technologically feasible within economic parameters. Therein lies the intent of the “cost of compliance” requirement. (*MEMA I*, 627 F.2d at 1118.)

U.S. EPA and NHTSA have extensively discussed in the NPRM the projected costs of compliance for the proposed emission standards, as set forth in both Alternative 3 and Alternative 4. Although the incremental costs for emission standards under Alternative 4 are generally higher than the corresponding costs for emission standards under Alternative 3, the incremental costs associated with Alternative 4 only constitute a fraction of the base costs of new engines and vehicles, and most importantly, are more than offset by the reduced fuel consumption costs within time frames of 2 to 6 years. These cost-related factors demonstrate that the emission standards associated with

Alternative 4 are technologically feasible, considering the cost of compliance within the lead time provided.

Alternative 4 is Consistent with NHTSA's Statutory Authority

NHTSA is promulgating the proposed fuel efficiency standards pursuant to the statutory authority of the EISA, which amends the Energy Policy and Conservation Act (EPCA) of 1975. Specifically, section 102 of EISA (49 USC section 32902(k)(2)) authorizes NHTSA to implement “a commercial medium- and heavy-duty on-highway vehicle and work truck fuel efficiency improvement program designed to achieve the maximum feasible improvement, and [to] adopt and implement appropriate test methods, measurement metrics, fuel economy standards, and compliance and enforcement protocols that are appropriate, cost-effective, and technologically feasible for commercial medium- and heavy-duty on-highway vehicles and work trucks.”

The fuel efficiency standards that correspond to the GHG emission standards associated with Alternative 4 are consistent with section 32902(k)(2) of EISA. In the Phase 1 rulemaking, NHTSA stated that it has the discretion to balance the factors specified in section 32902(k)(2) of EISA “in a way that is technology-forcing ... but not in a way that requires the application of technology which will not be available in the lead time provided by the rule, or which is not cost-effective, or is cost-prohibitive ...”¹³

As demonstrated above, Alternative 4 is consistent with the statutory provisions of section 202(a)(2) of the CAA regarding adequate lead times and costs of compliance associated with the proposed greenhouse gas emission standards. To the extent that NHTSA's considerations of lead times and compliance costs for the technologies needed to comply with fuel efficiency standards are consistent with the lead time and cost of compliance factors that U.S. EPA considered in developing the GHG emission standards associated with Alternative 4, the corresponding fuel efficiency standards are arguably consistent with the factors specified in section 32902(k)(2), and are consistent with NHTSA's statutory directive to achieve the maximum feasible improvement in fuel efficiency standards from commercial medium- and heavy-duty on-highway vehicles and work trucks.

¹³ Greenhouse Gas Emissions Standards and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles, U.S. EPA Response to Comments, Document for Joint Rulemaking, p. 5-17, EPA-420-R-11-004, August 2011.

Support Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40546

Comment - Interpretation that 49 U.S.C. 32919(a) does not extend to commercial medium- and heavy-duty on-highway vehicles and work trucks

NHTSA states that in the Phase 1 rulemaking it concluded that EPCA's express preemption provision of 49 U.S.C. 32919(a) (which expressly preempts any State or local government from adopting or enforcing a law or regulation related to fuel economy standards or average fuel economy standards for automobiles covered by an average fuel economy standard under 49 U.S.C. Chapter 329) does not extend to the fuel efficiency standards established in the Phase 1 rulemaking because commercial medium- and heavy-duty on-highway vehicles and work trucks are not "automobiles," as defined in 49 U.S.C. 32901(a)(3). NHTSA states that it is reiterating that conclusion for the proposed Phase 2 standards.

CARB staff concurs with NHTSA's reasoning and conclusion that 49 U.S.C. 32919(a) does not extend to the fuel efficiency standards established under the Phase 1 rulemaking or to the proposed fuel efficiency standards established under the Phase 2 rulemaking.

Tractor and Vocational Engine Standards

Comment on Topic Where NPRM Requests Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40182

Comment – Separate engine and vehicle standards

The NPRM requests comment on the choice to maintain separate engine and vehicle standards.

CARB staff strongly agrees with U.S. EPA and NHTSA's choice to maintain separate engine standards for the following reasons.

- Engine standards directly address the source of GHG emissions and ensure some efficiency improvements at the engine level will be achieved over the useful life of the vehicle. Without an engine standard, some vehicle manufacturers could elect to rely more heavily on vehicle technologies to meet emission standards. These technologies may prove to be less effective at reducing emissions as the vehicles' vocation changes over time. For example, line-haul tractors with aerodynamic technologies would see less of a benefit from the aerodynamic technologies if placed into local-haul service by a second owner.
- Separate engine standards based on the direct measurement of GHG emissions from engines can be directly verified for compliance using existing engine test protocols: U.S. EPA's heavy-duty engine ramped-modal Supplemental Emission Test (SET) and heavy-duty engine transient emissions test, i.e., the Federal Test procedure (FTP).
- The SET and FTP would continue to be used to certify heavy-duty engines to GHG emission standards, as well as the criteria pollutant emission standards. This provides a direct link between the GHG emission measurement and NOx emission measurement methods for certification.

Oppose/ Comment on Topic Where NPRM Requests Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40159-40160, 40584

Comment – Proposed GHG emission standards for spark-ignited engines

Under these paragraphs in 40 CFR1036.108 a)(1)(i) and (ii), CO₂ standards for 2016 and later spark-ignited engines remain at the Phase 1 levels of 627 grams per horsepower-hour (g/hp-hr), while compression ignition (and others deemed to be compression ignition in this section) have allowable CO₂ limits that decline over time. U.S. EPA and NHTSA's reasoning is that the volume of gasoline engines is relatively low in these vehicle classes, so reduction requirements will have few benefits to offset the research investment costs. CARB staff believes that some of the technology developed to reduce GHG emissions in the light-duty sector should be transferrable to

the medium- and heavy-duty sectors and recommends that declining GHG standards for spark-ignited engines be set based on these technologies. CARB staff believes that such GHG reductions for Phase 2 spark-ignited engines are cost-effective. The NPRM does request comment on reducing the Phase 1 CO₂ standard for spark-ignited gasoline engines by 1 percent to 621 g/hp-hr, based on the use of advanced friction reduction technology. CARB staff supports requiring more stringent standards for gasoline engines, and, at a minimum, supports the proposal in the NPRM to limit CO₂ emissions for Phase 2 spark-ignited gasoline engines to no more than 621 g/hp-hr.

The NPRM further requests comment on whether *not* requiring more stringent standards for gasoline engines would create an incentive for purchasers who would otherwise choose a diesel engine to instead choose a gasoline engine. CARB staff believes that, all other things being equal, such a switch could well occur. To avoid unintended incentives, CARB staff suggests that Phase 2 gasoline engines be required to meet reduced emission standards beyond the 621 g/hp-hr previously mentioned, the compliance with which would require similar investments and/or have a similar compliance cost as is anticipated for the compression ignition engines and vehicles. Because gasoline vehicles are currently cheaper than diesel, it is particularly important to avoid further incentives for buyers to choose less efficient, gasoline vehicles.

Oppose/Requested Change Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40194-40197

Comment – Stringency of the engine standards for heavy-duty tractors

The NPRM requests comment on the proposal to increase the stringency of the compression ignition tractor engine standards. CARB staff strongly supports U.S. EPA and NHTSA's decision to increase the stringency of the compression ignition engine standards. The Phase 1 regulation established engine standards that were easily achieved using "off-the-shelf" technologies. With the Phase 2 regulation, U.S. EPA and NHTSA committed to establish more stringent engine standards that force the introduction of new and advanced cost-effective engine technologies. CARB staff supports that effort, and in fact believes the engine standards should be made more stringent than either the preferred Alternative 3 standards or the Alternative 4 standards. As discussed further below, CARB staff recommends that when fully implemented, the

tractor engine standard stringency should be increased from 4.2 percent to 7.1 percent, and that full implementation should happen by MY 2024.

As shown in Table II-6 of the NPRM (included below), U.S. EPA and NHTSA's preferred Alternative 3 would result in standards for MY 2027 diesel engines that require a 4.2 percent reduction in CO₂ emissions versus a 2017 baseline engine. Also proposed are interim standards for MY 2021 and MY 2024, requiring reductions in CO₂ emissions of 1.5 to 3.7 percent better than a 2017 baseline. The proposed standards were determined by taking the SET weighted reduction for each technology, weighting it by the estimated market penetration, calculating a weighted average for the entire suite of technologies, and then applying a "dis-synergy factor" to the weighted average. Dis-synergy factors were used to make adjustments accounting for the potential that some combinations of technologies may result in CO₂ reductions less than that indicated by the calculated weighted average. The dis-synergy factor applied to the 2021 weighted average was 0.75. The dis-synergy factor applied to the 2024 and 2027 weighted averages was 0.85.

TABLE II-6—PROJECTED TRACTOR ENGINE TECHNOLOGIES AND REDUCTION

SET mode	SET weighted reduction (%) 2020–2027	Market penetration (2021) %	Market penetration (2024) %	Market penetration (2027) %
Turbo compound with clutch	1.8	5	10	10
WHR (Rankine cycle)	3.6	1	5	15
Parasitic/Friction (Cyl Kits, pumps, FIE), lubrication	1.4	45	95	100
Aftertreatment (lower dP)	0.6	45	95	100
EGR/Intake & exhaust manifolds/Turbo/VVT/Ports	1.1	45	95	100
Combustion/FI/Control	1.1	45	95	100
Downsizing	0.3	10	20	30
Weighted reduction (%)		1.5	3.7	4.2

CARB staff urges U.S. EPA and NHTSA to increase the stringency of the standards in consideration of the following concerns:

The estimated emission reductions used as the basis of Alternative 3 are overly conservative. A number of sources lead CARB to conclude that the SET weighted reductions that serve as the basis of the preferred Alternative 3 standards should be made more stringent, as listed below:

- The estimated emission benefits of the Phase 2 engine standards from a 2010 baseline engine are significantly less than the potential cited in a number of published technical assessments. There are a number of published studies that estimated the potential reduction from the application of engine technologies on

2010 and pre-2010 engine technologies, and the estimated emission benefits of the Phase 2 engine standards from a 2010 baseline engine are significantly less than the potential cited in these assessments. The GHG emission rate of a 2010 baseline engine, 490 g/bhp-hr, was defined by U.S. EPA and NHTSA when developing the Phase 1 tractor engine standard. The proposed Phase 2 tractor engine standard for 2027 is 441 g/bhp-hr and represents a 10 percent reduction from a 2010 baseline engine, which is much less than what has been estimated as technically feasible in the following reports.

- CARB's recently released technology assessment for engine and vehicle efficiency estimates that tractor engines can achieve up to 34 percent reduction in fuel use/GHG emissions from a 2010 baseline through the application of fuel saving technologies within the Phase 2 timeframe.¹⁴
- U.S. Department of Energy's Supertruck Program demonstrated engine efficiency improvements up to 22 percent from a 2009 baseline engine. Technologies demonstrated included waste heat recovery (WHR) systems using the Rankine cycle.¹⁵
- At the 2013 Society of Automotive Engineers (SAE) Commercial Vehicle Engineering Congress, Donald W. Stanton, Cummins Inc., presented a lecture entitled, "Systematic Development of Highly Efficient and Clean Engines to Meet Future Commercial Vehicle Greenhouse Gas Regulations." Dr. Stanton estimated that over 20 percent reduction in GHG emissions is possible through the application of engine technologies in the Phase 2 timeframe.¹⁶
- The International Council on Clean Transportation (ICCT) research study on advanced tractor-trailer efficiency technologies estimated that up to 21.5 percent fuel consumption reduction from a 2010 baseline engine is possible in the 2020 to 2030 timeframe with the application of advanced engine technologies and WHR (Rankine).¹⁷

¹⁴ (CARB, 2015c) California Air Resources Board, "Draft Technology Assessment: Engine/Powerplant and Drivetrain Optimization and Vehicle Efficiency," June 2015, <http://www.arb.ca.gov/msprog/tech/techreport/epdo_ve_tech_report.pdf>.

¹⁵ (Delgado and Lutsey, 2014) Delgado, O., Lutsey, N., The U.S. SuperTruck Program: Expediting the development of advanced heavy-duty efficiency technologies, June 2014, <<http://www.theicct.org/us-supertruck-program-expediting-development-advanced-hdv-efficiency-technologies>>.

¹⁶ (Stanton, 2013) Donald W. Stanton, "Systematic Development of Highly Efficient and Clean Engines to Meet Future Commercial Vehicle Greenhouse Gas Regulations," Cummins Inc., 2013 Society Automotive Engineers Commercial Vehicle Engineering Congress, 2013.

¹⁷ (Delgado and Lutsey, 2015) Delgado, O., Lutsey, N., Advanced Tractor-Trailer Efficiency Technology Potential in the 2020 2030 Timeframe, April 2015, <<http://www.theicct.org/us-tractor-trailer-efficiency-technology>>

- The SET weighted reductions are overly conservative. Cummins and SwRI, have conducted independent technical analyses assessing the potential reductions resulting from the application of engine technologies. Both analyses assumed the baseline engine was a Phase 1 compliant engine. The Cummins analysis was over the SET certification cycle; the SwRI analysis was over the drive cycles used by GEM.
 - Cummins has indicated that tractor engines can achieve a 9 to 15 percent fuel savings from a 2017 baseline engine in the 2020 to 2030 timeframe.
 - Southwest Research Institute (SwRI) completed a study for NHTSA to inform the development of the Phase 2 standards that concluded that tractor engine fuel consumption could be reduced 4 to 10 percent from a baseline 2019 engine compliant with the Phase 1 standards.¹⁸

Two of the above referenced sources, Cummins and SwRI, provided specific information relating the potential reductions from a Phase 1 compliant engine over either the SET certification cycle or the drive cycles used by GEM. The information they provided and how it compares to the proposed tractor engine standard is discussed in further detail below.

Cummins

At the April 22, 2015, CARB Symposium on Phase 2 GHG Emission Standards for Heavy-Duty Vehicles, Dr. Wayne Eckerle, Vice President of Corporate Research and Technology for Cummins Inc., presented Cummins' perspective on the potential for reduction of CO₂ from tractor engines in the 2020 to 2030 timeframe. Dr. Eckerle stated that CO₂ emission reductions of 9 to 15 percent from a 2017 baseline engine are achievable through improvements in combustion and air handling, friction and parasitics, heat transfer management, and WHR (Rankine cycle). These reductions were estimated over the SET certification cycle using the current mode weightings. The SET weighted reductions from Table II-6 for a tractor engine that employs WHR in the 2020 to 2027 timeframe are presented in Table 1. The total reduction of CO₂ emissions from the application of the suite of technologies is 6.7 percent. This includes the application of a dis-synergy factor of 0.85. WHR (Rankine cycle) was included since the Cummins engine employs that technology. Turbocompounding was not included

¹⁸ (Reinhart, 2015) Reinhart, T., Commercial Medium- and Heavy-Duty Truck Fuel Efficiency Technology Study – Report #2. Draft, <http://www.nhtsa.gov/staticfiles/rulemaking/pdf/cafe/Draft-SwRI-MDHD-FE-TechReport2_DocketVersion.pdf>.

since it is unlikely that a manufacturer would install two WHR technologies on the same engine.

Table 1: SET Weighted Tractor Engine Emission Reductions from Suite of Technologies under Proposed Phase 2 Stringency (U.S. EPA & NHTSA)

Technology	SET weighted reduction 2020-2027
WHR (Rankine cycle)	3.6%
Parasitic/Friction, lubrication	1.4%
Aftertreatment (lower dP)	0.6%
Exhaust Gas Recirculation (EGR)/Intake & exhaust manifolds/Turbo/Variable Valve Train (VVT)/Ports	1.1%
Combustion/FI/Control	1.1%
Downsizing	0.3%
TOTAL	6.7%

The 6.7 percent reduction represents the projected emission reduction from a single tractor engine that uses WHR (Rankine cycle) and not turbocompounding. The 4.2 percent reduction for MY 2027 (Table II-6 in the NPRM) represents the percent emission reduction from a fleet of tractor engines taking into account the projected market penetration of each technology. CARB staff believes comparing the 6.7 percent reduction to the 9 to 15 percent reduction represents an “apples-to-apples” comparison of what U.S. EPA and NHTSA, and Cummins believe is achievable in the 2020 to 2030 timeframe. So it is clear that U.S. EPA and NHTSA’s 6.7 percent is much lower than what Cummins has publicly stated is achievable in the Phase 2 timeframe.

Outside of WHR (Rankine cycle), Cummins has not published any information regarding the percent reduction potential associated with the individual engine technologies that contribute to the total 9 to 15 percent reduction estimate. Regarding WHR (Rankine cycle), Cummins estimates that a 4 to 5 percent emission reduction is achievable in the 2020 timeframe. Cummins is currently in its fourth generation WHR (Rankine cycle) system design and plans to implement end-user testing by late 2015, and has stated that production of a WHR (Rankine cycle) is possible by 2020.

Given the information provided by Cummins regarding the potential for CO₂ emission reductions, CARB staff strongly urges U.S. EPA and NHTSA to reevaluate the projected SET weighted reductions it used to determine the proposed tractor engine standards. Comparing the 3.6 percent reduction U.S. EPA and NHTSA projected for WHR (Rankine cycle) to the Cummins estimate of 4 to 5 percent, and U.S. EPA's overall percent reduction of 6.7 percent to the Cummins estimate of 9 to 15 percent, suggests that the proposed SET weighted reductions in the 2020-2027 timeframe are overly conservative and should be made more stringent.

SwRI Report

To inform the development of the Phase 2 standard, the SwRI conducted research assessing the effectiveness of potential GHG emission reducing technologies for the Phase 2 timeframe. Engine models were created and calibrated using available experimental data. Each engine model was exercised over five cycles that included the three Phase 1 GEM cycles, i.e., 55 miles per hour (mph) steady-state cruise, 65 mph steady-state cruise, and the CARB urban cycle.

Based on the technologies studied, SwRI concluded that there is the potential to improve long-haul truck engine fuel consumption and GHG emissions by 8 to 10 percent over the Phase 1 baseline. This would require the use of WHR (Rankine cycle). The study also indicated that fuel savings and GHG emissions using friction reduction and down speeding could result in reductions in the 4 to 7 percent range.

To more directly compare the results of the SwRI study to the proposed Phase 2 engine standards, staff compared the SET weighted reductions assumed by U.S. EPA and NHTSA in setting the engine standard (as shown in Table 1), to the SwRI simulation results from the drive cycles used in GEM. Staff believes directly comparing the percent reduction from the SET to the percent reduction from the weighted GEM cycles is appropriate since U.S. EPA and NHTSA concluded that tractor engine technologies will improve engines and tractors proportionally, even though the separate engine and vehicle certification test procedures have different duty cycles (page 40199 of the NPRM). Table 2 shows the simulation results for two technology packages modeled in the SwRI study. Technology package 1 (referred to as "DD15 Technology Package 2" in the SwRI report) includes aggressive friction reduction and downspeeding, but does not include WHR (Rankine cycle). Technology package 2 (referred to as DD15 Technology Package 3f in the SwRI report) includes technology package 1 with WHR (Rankine cycle). These simulation results were estimated using the same three test

cycles used in GEM. Staff then weighted the results in accordance with the GEM drive cycle weightings for sleeper-cab tractor trailers and day-cab tractor-trailers, as shown in Table 3. The percent reductions represent the reductions from a Phase 1 compliant baseline engine at 100 percent payload (46,040 lbs).

Table 2: SwRI Study: Percent GHG Emission Reductions from Engine Technologies

Technology Combination	Test Cycle		
	CARB	55 MPH	65 MPH
Tech Package 1 (No WHR)	6.6%	4.4%	4.9%
Tech Package 2 (with WHR)	6.6%	10%	11%

Table 3: SwRI Percent GHG Emission Reductions Weighted in Accordance with the Phase 2 GEM Drive Cycle Weightings

Technology Combination	Sleeper-cab (5% CARB/ 9% 55/ 86% 65)	Day-cab (19% CARB/ 17% 55/ 64% 65)
Tech Package 1 (No WHR)	4.9%	5.1%
Tech Package 2 (with WHR)	10.7%	10.0%

As shown in Table 3, based on the SwRI study, the percent reduction in GHG emissions is estimated to range from 10.0 to 10.7 percent with WHR (Rankine cycle) and 4.9 to 5.1 percent without it. Comparing this to U.S. EPA and NHTSA's overall percent reduction of 6.7 percent with WHR (Rankine cycle) and 3.8 percent without WHR (Rankine cycle) suggests that the proposed SET weighted reductions in the 2020-2027 timeframe are overly conservative and should be made more stringent.

The dis-synergy factors used to establish the final standards are unnecessary given the conservative nature of the proposed standards.

U.S. EPA and NHTSA applied dis-synergy factors of 0.75 for MY 2021 and 0.85 for MYs 2024 and 2027. These factors are based on U.S. EPA and NHTSA staff's engineering

judgment and are meant to account for the potential dis-synergy of engine technologies. For example, friction reduction technologies reduce waste heat produced by the engine. This, in turn, could reduce the effectiveness of WHR (Rankine cycle) to some degree. The dis-synergy factor is intended account for this loss of effectiveness. CARB staff understands the rationale behind the application of dis-synergy factors, but believes they are unnecessary given 1) the conservativeness of the SET weighted reductions that serve as the basis for preferred Alternative 3 standards and 2) the equation¹⁹ used to calculate the benefit of multiple combined technologies does not simply add the percent effectiveness of each technology, but accounts for the interaction between technologies and potential loss of effectiveness as technologies are combined. As noted previously, Cummins stated that CO₂ emission reductions of 9 to 15 percent from a 2017 baseline engine are achievable. The 9 to 15 percent estimate incorporates the anticipated dis-synergy when combining engine technologies. Removing the application 0.85 dis-synergy factor from U.S. EPA and NHTSA's calculation of the 2027 standard would raise the percent reduction of the standard from 4.2 percent to 4.8 percent. This is much less than what CARB believes is achievable, but would be a step in the right direction.

Suggested Tractor Engine Stringency

In consideration of the information presented above and additional information as noted below, CARB recommends U.S. EPA and NHTSA reevaluate the stringency of the tractor engine standards for preferred Alternative 3. Specifically, CARB suggests U.S. EPA and NHTSA make the following changes to the assumptions used in setting the standards:

- Increase the percent reduction associated with "Parasitic/friction, lubrication" from 1.4 percent to 3.3 percent. Parasitic/friction, lubrication improvements were included in the technology package 1 discussed above. The SwRI study also evaluated the benefit of these improvements separately (referred to as DD15 Technology Package 1 in the SwRI report). The GEM drive cycle weighted average of the SwRI results ranged from 3.2 percent benefit for sleeper-cab tractor trailers to 3.4 for day-cab tractor-trailers.
- Remove the dis-synergy factor from standard setting calculation.
- Increase the 2024 penetration rate assumptions to those proposed in 2027. This more aggressive implementation schedule is consistent with our

¹⁹ %GHG reduction_{package} = 100[1 - (1 - (%GHG_{tech 1}/100))(1 - (%GHG_{tech 2}/100))... (1 - (%GHG_{tech N}/100))]

recommendation to adopt the Alternative 4 implementation schedule for all engine and vehicle categories.

- Combine the WHR turbocompounding and Rankine cycle categories into one WHR category and increase the percent reduction associated with WHR to 4.5 percent. CARB staff is suggesting that for standard setting purposes the WHR SET reduction should reflect the percent reduction potential from the most effective technology, which would be 4.5 percent from WHR (Rankine cycle). The market penetration values used to set the standard would be the combined existing Alternative 3 percentages for turbocompounding and Rankine cycle technologies. Thus the market penetration for the engines that are projected to utilize WHR systems (either turbocompounding or Rankine cycle) remains unchanged from the original U.S. EPA proposal. But, the higher SET reduction associated with WHR would drive more to install WHR Rankine cycle systems. CARB is confident that manufacturers will have WHR Rankine cycle systems tested and production-ready to meet the MY 2024 standard. WHR Rankine cycle technology was developed and implemented as part of the Supertruck program. A fourth generation design of this technology is currently being developed for tractor applications by Cummins. End-user testing of this system is planned for late 2015. Production is possible as early as 2020. This should be sufficient leadtime to develop reliable and compliant engines for MY 2024.

Table 4 below illustrates the impact the suggested changes would have on the stringency of the proposed tractor engine standards.

Table 4: Projected Market Penetration of the Proposed Tractor Engine Technologies

Technology	SET Weighted reduction	Market Penetration (2021)	Market Penetration (2024)	Market Penetration (2027)
WHR System (combination of Rankine cycle and Turbocompounding)	4.5%	6%	25%	Same as 2024 Standard
Parasitic/friction, lubrication	3.3%	45%	100%	
Aftertreatment (lower dP)	0.6%	45%	100%	
EGR/Intake and Exhaust manifolds/Turbo/VVT/Ports	1.1%	45%	100%	

Technology	SET Weighted reduction	Market Penetration (2021)	Market Penetration (2024)	Market Penetration (2027)
Combustion/FI/Control	1.1%	45%	100%	
Downsizing	0.3%	10%	30%	
Weighted Reduction		3.0%	7.1%	

To summarize, as shown in Table 4, CARB recommends that when fully implemented, the tractor engine standard stringency should be increased from 4.2 percent to 7.1 percent, and that full implementation should happen three years earlier than indicated in the preferred Alternative 3, moved from 2027 to 2024. This more aggressive implementation schedule is consistent with our recommendation to adopt the Alternative 4 implementation schedule for all engine and vehicle categories.

Impact of More Stringent Tractor Engine Standards on Alternative 4 Tractor Vehicle Standards

If U.S. EPA and NHTSA adopt more stringent tractor engine standards, the corresponding tractor vehicle standards should also be made more stringent. Table 5 shows the fuel consumption reductions for the tractor engine and vehicle standards fully implemented by MY 2024. As discussed above we are suggesting that U.S. EPA and NHTSA adopt the Alternative 4 implementation schedule for tractor engine standards; the same holds true for tractor vehicle standards. Therefore, full implementation is shown as occurring by MY 2024 and not 2027 as prescribed by U.S. EPA and NHTSA's preferred Alternative 3.

Table 5: Projected Phase 2 Improvements for Tractors

	MY 2024 Tractor Engine Standard Reduction	MY 2024 Tractor Vehicle Standard Reduction
Proposed Standard % Reductions	4.2%	18%-24%
CARB Suggested More Stringent Standard % Reductions	7.1%	21%-27%

As shown, CARB is suggesting that U.S. EPA and NHTSA adopt more stringent tractor engine standards that would result in an additional 3 percent reduction when fully implemented by MY 2024. This would result in a corresponding additional 3 percent reduction in the tractor vehicle standard.

Oppose/Requested Change Comment

Affected Document(s): Phase 2 Proposed Rules

Affected Pages: 40197-40198

Comment - Feasibility of vocational vehicle engine standards

CARB staff strongly recommends strengthening the proposed vocational engine standard from the proposed 4.0 percent reduction in CO₂ emissions beyond Phase 1 to 4.3 percent. For compression ignition engines fitted into vocational vehicles, the NPRM proposes an engine standard that achieves 4.0 percent reduction in CO₂ emissions beyond the Phase 1 standard. This proposed engine standard was derived assuming certain SET weighted reductions for applicable technologies, along with a certain penetration for each technology. Table 6 shows the projected emission reductions from the SET weighted reductions for vocational engine technologies listed in the NPRM. Without accounting for penetration, the vocational engine reductions amount to a 6.0 percent improvement for MY 2027 (in other words, 6.0 percent reduction could be achieved if the described technologies had penetration of 100 percent; with the technology penetrations assumed, the technologies' 6.0 percent potential improvement achieves an overall 4.0 percent reduction for vocational compression-ignition engines in total). Cummins, the largest manufacturer of heavy-duty truck engines, has publically stated a vocational engine emission improvement of 5 to 11 percent in the Phase 2 timeframe is feasible. U.S. EPA and NHTSA are currently proposing a vocational engine standard consistent with the lowest end of Cummins' projections.

In addition, in deriving the proposed standard, U.S. EPA and NHTSA applied a dis-synergy factor of 0.85. CARB staff does not believe that the dis-synergy factor adjustment is necessary for two reasons. One, manufacturers already account for dissynergistic effects between various technologies when predicting future engine improvements. Therefore, U.S. EPA is, in essence, double discounting when applying in their own dis-synergy factor. Two, the proposed vocational engine standard for vocational engines is already conservative; therefore, CARB staff believes the

application of a dis-synergy factor is unnecessary. CARB staff strongly urges U.S. EPA and NHTSA to improve the vocational engine standard. Overall, CARB staff believes that the proposed Phase 2 emission standard for vocational vehicles under both Alternative 3 and Alternative 4 is overly conservative and leaves emission benefits “on the table.”

Table 6: SET Weighted Reductions from Vocational Engine Suite of Technologies (U.S. EPA & NHTSA)

Technology	SET weighted reduction 2020-2027
Model based control ²⁰	2.0%
Parasitic Friction	1.5%
EGR/Air/VVT/Turbo ²¹	1.0%
Improved Aftertreatment	0.5%
Improved Combustion	1.0%
TOTAL	6.0%

Comment on Topic Where NPRM Requests Comment

Affected Document(s): Phase 2 Proposed Rules

Affected Pages: 40192

Comment - Proposed reweighting of SET modes

The NPRM requests comment on the reweighting of SET modes. CARB staff agrees with U.S. EPA and NHTSA that the current 23 percent weighting of “C Speed” in the SET Cycle will not adequately represent typically real world driving conditions seen in future heavy-duty applications. Therefore, CARB staff supports the reweighting of the SET cycle as proposed to increase the importance of the A Speed engine applications, while decreasing the application of C Speed engine modes.

²⁰ See page 40195 of the NPRM for more details of the technology

²¹ See page 40195 to 40196 of the NPRM for more details of the technology

Class 7 and 8 Combination Tractor Vehicle Standards

Comment on Topic Where NPRM Requests Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40211, 40236-40241

Comment – CARB strongly prefers proposed Alternative 4 Phase 2 Heavy-Duty Combination Tractor Emission Standards

The NPRM requests comments on the proposed alternatives, with special interest in Alternatives 3 and 4. In total, the NPRM considers five alternatives as summarized in Table II-22 of the NPRM, shown below:

TABLE III-22—SUMMARY OF ALTERNATIVES CONSIDERED FOR THE PROPOSED RULEMAKING

Alternative 1	No action alternative
Alternative 2	Less Stringent than the Proposed Alternative applying off-the-shelf technologies.
Alternative 3 (Proposed Alternative)	Proposed Alternative fully phased-in by 2027 MY.
Alternative 4	Alternative that pulls ahead the proposed 2027 MY standards to 2024 MY.
Alternative 5	Alternative based on very high market adoption of advanced technologies.

For tractors as with all vehicle categories, Alternative 1 is the no action alternative. Alternative 2 would base the standards on the application of off-the-shelf technologies, which is the same approach taken in Phase 1. Alternative 3 is U.S. EPA and NHTSA's preferred alternative. Alternative 4 is identical in stringency to Alternative 3, but its implementation schedule is accelerated by three years (i.e., from 2027 to 2024). Alternative 5 is the most aggressive alternative, requiring the highest market adoption rate of more advanced technologies amongst the five alternatives. CARB strongly prefers Alternative 4 standards over Alternative 3 standards over all vehicle categories including tractors.

For a compliant Phase 2 tractor, U.S. EPA and NHTSA estimate that Alternative 3 standards would achieve up to 24 percent reduction in CO₂ emissions compared to a Phase 1 tractor at a cost of approximately \$13,000 per vehicle. Alternative 4 achieves the same percent reduction in CO₂ emissions and fuel consumption compared to a Phase 1 tractor, but does it three years earlier, at a per vehicle cost of approximately \$14,000 per vehicle (i.e., \$1,000 more per vehicle than Alternative 3).

Alternative 4 is technologically feasible and will result in more emission and fuel consumption reductions from heavy-duty tractors in MYs 2021 through 2026. The

increased cost due to the accelerated implementation is minimal – about \$1,000 per vehicle as estimated by U.S. EPA and NHTSA. The improved fuel efficiencies resulting from either alternative would decrease fuel use, which equates to fuel savings that would eventually offset the upfront cost of the required technologies. U.S. EPA and NHTSA estimate the payback period for tractor and trailers for both Alternative 3 and 4 is similar at about 2 years.

When looking more broadly at not only tractors, but also tractor engines and the trailers they pull, Alternative 4 achieves greater emission benefits and greater net societal benefits, than Alternative 3. As summarized in Table 7, Alternative 4 for tractors, tractor engines, and trailers would cumulatively achieve 75.7 more MMT CO₂ reductions nationally than Alternative 3 for MYs 2018 through 2029 vehicles. This additional reduction would occur with a \$16.7 billion greater net benefit in the U.S.

Table 7: Tractor-Trailer Alternative 3 and 4 Comparison (U.S. Benefits through MY 2029)

	Alternative 3	Alternative 4	Difference
CO₂ reduction [MMT]	816.4	892.1	75.7
Net Social Benefit [\$billion]	202.0	218.7	16.7

(from the NPRM, Tables X-1 and X-5, 3% discount rate, baseline 1a)

In addition, the increases in tractor engine technology application rates from Alternative 3 to Alternative 4 are not overly aggressive and should not negatively impact reliability. The Alternative 3 and Alternative 4 standards are based on the application of the same emission control technologies. The difference between the two standards is the assumed adoption rate of each technology in 2024. Table 8 shows the Alternative 3 and Alternative 4 adoption rates for the standard setting tractor engine technologies.

Table 8: Comparison of Alternative 3 and Alternative 4 2024 Technology Penetration Rates for Tractor Engines

Technology	Alternative 3 Market Penetration in 2024	Alternative 4 Market Penetration in 2024
Turbocompounding with clutch	10%	10%
WHR (Rankine cycle)	5%	15%
Parasitic/Friction	95%	100%
Aftertreatment	95%	100%
EGR/Intake and exhaust manifolds/Turbo/VVT/Ports	95%	100%
Combustion Control	95%	100%
Downsizing	20%	30%

As shown in Table 8, there is no increase in market penetration for turbocompounding, and only a 5 percent increase for parasitic and friction reduction, aftertreatment improvements, EGR and Intake improvements, and combustion control. CARB staff does not believe an additional 5 percent increase in market penetration – from 95 percent to 100 percent - should result in any additional reliability concerns amongst engine manufacturers. Further, the Alternative 3 2024 market penetration rate for WHR was only 5 percent. A fourth generation design WHR system is currently being developed for tractor applications by Cummins. End-user testing of this system is planned for late 2015. Production is possible as early as 2020. This should be sufficient leadtime to develop reliable and compliant engines.

The tractor vehicle technologies used to set the tractor standards varied by class of tractor (class 7/8), type of tractor cab (day cab or sleeper cab), and height of roof (low roof, mid roof or high roof). Table 9 shows the Alternative 3 and Alternative 4 technology adoption rates for class 8 high roof sleeper cab tractors. The conclusions drawn from comparing these adoption rates of these tractors can be applied to all tractor types addressed by the standards.

Table 9: Comparison of Alternative 3 and Alternative 4 2024 Technology Penetration Rates for Class 8 Sleeper Cab Tractors

Technology	Alternative 3 Market Penetration in 2024	Alternative 4 Market Penetration in 2024
Aerodynamics		
Bin I	0%	0%
Bin II	0%	0%
Bin III	30%	20%
Bin IV	30%	20%
Bin V	25%	35%
Bin VI	13%	20%
Bin VII	2%	5%
Steer Tires		
Base	5%	5%
Level 1	50%	20%
Level 2	30%	50%
Level 3	15%	25%
Drive tires		
Base	5%	5%
Level 1	50%	20%
Level 2	30%	50%
Level 3	15%	25%
Extended Idle Reduction		
APU	90%	90%
Transmission Type		
Manual	20%	10%
AMT	50%	50%
Auto	20%	30%
Dual Clutch	10%	10%
Driveline		
Axle Lubricant	40%	40%
6x2 or 4x2 Axle	60%	60%
Downspeed	40%	60%
Direct Drive	50%	50%
Accessory Improvements		
A/C	20%	30%

Technology	Alternative 3 Market Penetration in 2024	Alternative 4 Market Penetration in 2024
Electric Access	20%	30%
	Other Technologies	
Predictive Cruise	40%	40%
ATIS	40%	40%

As shown in Table 9, there is no increase in market penetration between Alternative 3 and Alternative 4 for extended idle reduction, predictive cruise control, automatic tire inflation systems (ATIS), axle lubricant technologies, 6x2 axle or 4x2 axle technologies, direct drive technologies, and dual clutch transmissions .

The market penetration rates for aerodynamic technologies and low rolling resistance (LRR) tires show a decrease in the penetration rates for technologies that are equivalent to SmartWay and SmartWay Elite technologies and a higher penetration of more advanced aerodynamic treatments and LRR tire materials and designs. Currently, aerodynamic technologies are dominated by existing, widely-used fairings and more aerodynamic shapes of the tractor body itself. Bin II represents currently available SmartWay aerodynamic technologies. Bin V through VII tractors incorporate more advanced technologies which are currently in the prototype stage of development, such as advanced gap reduction, rearview cameras to replace mirrors, wheel system streamlining, and advanced body designs. To the extent that these advanced designs use existing technologies in new and innovative ways (i.e., rearview cameras) concerns over reliability are minimal. For the steer and drive tire technologies, level 1 represents rolling resistance equivalent to today's SmartWay tires. Level 2 represents the best in class rolling resistance tires available today. Level 3 represents a 25 percent improvement over level 2 which should be achievable in the 2024 timeframe. Should more complex systems or advanced materials require more reliability testing prior to MY 2024 tractor production date deadlines, higher applications of one or more of the other proven technologies from the other categories (i.e., level 2 LRR tires, predictive cruise, ATIS, etc.) can be used to meet the 2024 Alternative 4 standards.

For transmissions, the market penetrations decrease for manual transmissions and increase for automatic transmissions when comparing Alternative 3 to Alternative 4. This change is reflected in the increase in the application of downspeeding, since advanced transmissions enable downspeeding. With the exception of dual clutch transmission technology, automated manual transmission and automatic transmission

technology is mature and should not result in reliability concerns associated with its application in MY 2024 tractors.

Comment on Topic Where NPRM Requests Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40217

Comment – Extended idle reduction approach to day cab tractors

The NPRM requests comment on the applicability of the idle test cycle to day cab tractors.

Day cab tractors often idle while cargo is loaded or unloaded, as well as during the frequent stops that are inherent with driving in urban traffic conditions near cargo destinations. To recognize idle reduction technologies that reduce workday idling, U.S. EPA and NHTSA have developed a new idle-only duty cycle that is proposed to be used in GEM for vocational vehicles only, because these types of vehicles spend more time at idle than tractors. However, U.S. EPA and NHTSA request comment on whether they should extend this vocational vehicle idle reduction approach to day cab tractors.

CARB staff believes U.S. EPA and NHTSA should extend the idle provision to day cab tractors. Currently, limited numbers of specific types of day-cab tractors (e.g., low-roof bottle delivery tractors) may be reclassified as vocational tractors. These reclassified tractors can take advantage of the vocational vehicle idle reduction approach. See 40 CFR 1037.630. By extending the workday idle provisions to all day-cab tractors, manufacturers would have some incentive to install neutral idle or stop-start systems on mid-roof and high roof day-cabs. Although the first user may not see significant emission reductions from these technologies, many of the high roof and mid roof day cab tractors are used in port and drayage applications in their second life – where start-stop and neutral idle technologies could result in significant emission reductions as these trucks travel in and out of ports and rail yard facilities.

Extending the idle provision to day cab tractors would require U.S. EPA and NHTSA to set a fixed GEM composite cycle weighting factor at a value representative of the time spent at idle for a typical day cab tractor. For vocational vehicles in the regional category, the idle cycle weighting factor is 10 percent. U.S. EPA and NHTSA suggest 5 percent may be the appropriate value. Initial reaction is that the factor will probably be

between 5 and 10 percent. CARB staff would like to work with U.S. EPA and NHTSA staff to determine the appropriate value for the day cab factor.

Vocational Vehicle Standards

Oppose/Requested Change Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40304

Comment - Emission credits for electrified accessories for vocational vehicles

U.S. EPA and NHTSA have not included electrified accessories as a component of the GEM model for vocational vehicles and instead propose to only allow manufacturers to apply for off-cycle credits for the technology. CARB staff sees electrified accessories as a viable technology to improve emissions in the vocational sector and believes it should be included in the overall stringency standards and GEM model. As stated in the NPRM, electrified accessories can result in a 2 to 4 percent fuel consumption benefit in vocational applications. CARB's recently released report on heavy-duty drivetrain and vehicle efficiency²² backs these findings up, suggesting a 1 to 3 percent benefit from electrified accessories. This technology is feasible as it has already been demonstrated in various applications. With the long lead time of the Phase 2 regulation, CARB staff believes that the production volumes for electrified accessories can substantially increase if pushed by regulatory action, raising the production volumes and significantly lowering the costs, which will make this technology a cost-effective approach to reduce CO₂ emissions.

U.S. EPA and NHTSA are proposing vocational stringencies of 16 percent fuel consumption improvement by 2027. Electrified accessories could allow the proposed stringencies to be significantly tightened in certain vocational applications and should be included in the final rule. By only allowing off-cycle credits for electrified accessories, U.S. EPA and NHTSA are leaving out fuel reduction benefits from a technology that will be readily available in the Phase 2 timeframe.

²² (CARB, 2015c) California Air resources Board, "Draft Technology Assessment: Engine/Powerplant and Drivetrain Optimization and Vehicle Efficiency," June 2015, <http://www.arb.ca.gov/msprog/tech/techreport/epdo_ve_tech_report.pdf>.

Oppose/Requested Change Comment

Affected document(s): Phase 2 Proposed Rules; Draft Regulatory Impact Analysis: Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles - Phase 2 Proposed Rule (RIA)

Affected pages: NPRM 40253, 40159, 40331, 40300-4; RIA 11-59 to 11-61

Comment – Current and future status of all BEV; standards should assume some use of all EVs

In the NPRM, U.S. EPA and NHTSA confirm that BEVs have advantages over their conventionally-fueled counterparts in terms of efficiency, torque, regenerative braking opportunities, and low noise characteristics, but also notes that they are limited by weight, range, and cost. Because of the high cost and developing nature of this technology, U.S. EPA and NHTSA do not project that fully electric vocational vehicles will be widely commercially available in the time frame of the proposed rules, and the proposed standards are not based on any level of adoption of this technology. Yet U.S. EPA and NHTSA do indeed project some use of these technologies as is noted “While the agencies have not premised the proposed Heavy-Duty Phase 2 tractor standards on hybrid powertrains, FCEVs, or BEVs, we also foresee some limited use of these technologies in 2021 and beyond.” (page 40253 of the NPRM) In acknowledging the projected use of BEVs but not including their use in setting appropriate emission standards, U.S. EPA is leaving potential emission benefits on the table. CARB staff believes that the GHG standards should incorporate limited penetration rates for these advanced technologies, particularly for vocational vehicles.

While CARB staff agrees with U.S. EPA and NHTSA’s assessment of the advantages and limitations of current medium- and heavy-duty EVs, CARB staff is significantly more optimistic about the potential penetration of BEVs into the market during the Phase 2 timeframe. CARB staff believes that the current status of heavy-duty zero-emission vehicles is more advanced than U.S. EPA and NHTSA project. In the NPRM, U.S. EPA and NHTSA state “[W]e have not found any all-electric heavy-duty vehicles that have certified by 2014. As we look into the future, we project very limited adoption of all-EVs into the market.” (page 40159 of the NPRM) “In our assessment, we have observed that the few all-electric heavy duty vocational vehicles that have been certified are being produced in very small volumes in MY2014.” (page 40331 of the NPRM) “[T]he

agencies do not project fully electric vocational vehicles to be widely commercially available in the time frame of the proposed rules. For this reason, the agencies have not based the proposed Phase 2 standards on adoption of full-electric vocational vehicles.” (page 40304 of the NPRM) CARB staff believes these assessments are not as optimistic as the status of the technology indicates.

In our medium- and heavy-duty BEV technology assessment, CARB staff investigated the current status of the technology. We specifically looked at transit bus applications, school bus applications, medium-duty trucks and shuttle buses (8,501-14,000 lbs GVWR and heavy-duty trucks (>14,000 lbs GVWR). We found that battery all-electric transit buses are commercially available, with over 2,600 of battery all-electric buses worldwide. New orders are placed regularly. Urban transit buses are an ideal application for battery all-electric heavy-duty vehicles because they operate on fixed routes of normally short distances, perform frequent stop and start driving which is needed for regenerative braking, maintain low average speeds which helps to preserve the battery power, and return to a general base or facility at the end of the day which enables overnight charging. Electric transit buses are currently available from BYD, New Flyer, and Proterra, while Nova’s new electric bus model is in demonstration. CARB is developing advanced transit fleet requirements, which will be predicated on the widespread use of electric transit buses. CARB staff believes that the Phase 2 GHG standards should assume the penetration of electric transit buses into the nationwide fleet.

School buses are not yet as commercially available as transit buses. The TransTech SSTE type A school bus is available for purchase, however, and Lion, a Canadian company, has recently released the eLion type C school bus. Electric school buses have the potential for significant market penetration in the next 5 to 10 years, well within the timeframe of the Phase 2 GHG regulations. CARB has funded three electric school bus demonstrations to date, starting in fiscal year 2011/12 and those projects have been completed, with buses now transporting children daily. The final reports from these projects are posted on CARB’s Air Quality Improvement Program (AQIP) Advanced Technology Demonstration Project webpage at: <http://www.arb.ca.gov/msprog/aqip/demo.htm>.

There are hundreds of BEVs in the medium-duty (8,501-14,000 lbs GVWR) vocational category already operating on California's roads; such vehicles are in the early commercialization stage. Vehicles in this category are being utilized in an optimal duty

cycle for BEVs, urban delivery, and have CARB incentives to promote adoption. For example, to reduce the incremental costs of zero-emission vehicles, CARB has been providing financial incentives to fleets statewide through programs such as California's Hybrid and Zero-Emission Truck and Bus Voucher Incentives Project (HVIP). Since HVIP's launch in 2010, CARB has provided over \$10 million to funding nearly 400 heavy-duty BEVs.²³ CARB staff expects widespread penetration of BEVs into some parts of the market place in the next 5 to 10 years. Therefore, CARB staff believes it would be appropriate to assume some market penetration of BEVs in this class in the timeframe of the Phase 2 GHG regulations.

Expanding BEV technology into additional applications in the heavy-duty truck segment (other than buses) will require further developments in battery technology and lower vehicle component costs overall. It is not expected that BEVs will penetrate into the long-haul trucking market in the next several decades without significant advances in battery energy density and BEV recharging technologies. CARB staff agrees it is reasonable to presume no significant market penetration in the regulatory timeframe for long haul class 7 and 8 tractors. There are electric drayage trucks in demonstration phases, as well as electric refuse trucks, but CARB staff agrees it is likely that commercial BEV penetration in these applications will be limited during the next decade.

However, CARB staff believes it is appropriate to push technology development. Electric vocational vehicles have been demonstrated effectively; stringent emission requirements would further promote their use. CARB staff encourages U.S. EPA and NHTSA to continue to evaluate appropriate different technologies and approaches that can achieve substantial emission reductions. Over the past decade, heavy duty fleets have made substantial investments to adopt modern, lower-emitting vehicles. Today, as noted above, zero-emission vehicles such as battery electric and fuel cell electric buses are in the early commercialization phase. Demonstrations are underway across the State in a wide array of heavy-duty applications including drayage trucks, delivery trucks, and school buses. State incentives are in place that are encouraging the development and adoption of these technologies, increasing production volumes, fostering innovation, and reducing costs. For more information, please see CARB's battery and fuel cell electric technology assessment that is currently in development and will be posted at <http://www.arb.ca.gov/msprog/tech/report.htm> when available.

²³ California Air Resources Board, "Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project." See <http://www.arb.ca.gov/msprog/aqip/hvip.htm>.

While CARB staff acknowledges that the present populations of medium- and heavy-duty vocational BEVs are low, these numbers are expected to increase significantly in the Phase 2 timeframe. For example, CARB staff plans to propose purchase zero-emission requirements for last-mile delivery vehicles in 2020, which will significantly increase demand for these vehicles. Yet U.S. EPA and NHTSA's proposed emission standards are not based on the inclusion of any zero-emission vehicles under either Alternative 3 or the more accelerated Alternative 4. To assume no penetration in the selected Alternative does not reflect market trends and results in a loss of potential GHG emission reductions by setting the emission standard less stringent than would be appropriate with the inclusion of these vehicles. CARB staff notes that even with the higher upfront capital cost of EVs, the anticipated savings in operation and maintenance costs allows payback of the initial investment and significant market penetration for medium- and heavy-duty vehicles operating in an "optimum" BEV duty cycle (defined routes, lots of starts and stops, high idle time, and lower average speeds) can occur in the Phase 2 timeframe. Therefore, CARB staff recommends that U.S. EPA and NHTSA set emission standards that are based on the inclusion of an electric vocational vehicle penetration rate of at least 1 percent, which is a third of the rate projected for Alternative 5 in the NPRM.

Oppose/Requested Change Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40308

Comment - Vocational vehicle stringency across subcategories

CARB staff recommends that U.S. EPA and NHTSA re-examine the weighting procedure used to set equivalent standards for the three subcategories of vocational vehicles in the NPRM. CARB staff agrees it is important to set the standards so manufacturers do not have an incentive to purposely "misclassify" their vehicles. However, CARB staff is concerned that the method described on page 40308 of the NPRM may inadvertently present just such an incentive.

In the example on page 40308, the NPRM explains that for one technology that would provide a 5 percent benefit for regional vehicles, 7 percent for multipurpose vehicles, and 8 percent for urban vehicles, when setting the proposed standards, they weighted the reductions and assumed 6.6 percent benefit for all three subcategories. CARB staff is concerned that a manufacturer using such a technology would have an incentive to

classify their vehicle as urban (to show an 8 percent benefit) even if their vehicle actually would fit more appropriately in the regional or multipurpose subcategories (where the device would show only a 5 to 7 percent benefit). CARB staff encourages U.S. EPA and NHTSA to re-examine whether it may be more appropriate to set differing standards for the differing vocational vehicle subcategories, to remove this potential incentive for misclassification.

Oppose/Requested Change Comments

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40295

Comment - Feasibility of proposed vocational vehicle stringency standards

CARB staff recommends that Alternative 4 be chosen, with the regulation proposing standards out to MY 2024 vehicles. CARB staff believes the proposed rule in its current framework is conservative and leaves obtainable emission benefits on the table. CARB staff does not believe that the current stringencies require the additional three years of lead time that is proposed in Alternate 3. Multiple manufacturers have made it clear to CARB staff that the proposed stringencies can easily be met in the MY 2024 compliance time frame. In the current Alternative 3 framework, most technologies do not see significant changes in penetration from MY 2024 to MY 2027. CARB staff notes that stop-start and transmission market penetrations are significantly affected by a switch from Alternative 3 to Alternative 4. However, these technologies are either already starting to penetrate the vocational marketplace or have prototypes and demonstrations in place as of today; therefore, CARB staff views the nine years of lead time until 2024 as ample time to meet the penetration goals that U.S. EPA and NHTSA have proposed.

CARB staff believes that Alternative 4 for vocational vehicles is feasible and superior to Alternative 3 for the following reasons:

- **Alternative 4 achieves greater emission benefits and greater net societal benefits than Alternative 3.** As summarized in Table 10 below, Alternative 4 for vocational vehicles would achieve 33.5 more total MMT CO₂ reductions and a \$5.2 billion greater total societal benefit nationally through MY 2029.
- **The projected payback period for Alternative 4 is still acceptable and within the same year as the projected payback period for Alternative 3.**

Table 10: Heavy-Duty Vocational Vehicle Alternative 3 and 4 Comparison (U.S. Benefits through MY 2029)

	Alternative 3	Alternative 4	Difference
CO₂ reduction* [MMT]	110.3	143.8	33.5
Net Social Benefit** [\$billion]	21.7	26.9	5.2

(*from the NPRM, Table X-5; **from the NPRM, Table X-1)

In addition to recommending the Alternative 4 timing for the final rule, CARB staff is also proposing that U.S. EPA and NHTSA strengthen the final vocational vehicle stringency standards of the proposed rule. As mentioned elsewhere in our comments, CARB staff notes that viable technologies such as regional/multipurpose vocational aerodynamics and electrified accessories should be included in the final rule stringency standards. Additionally, CARB staff proposes that the engine standard be strengthened (as previously discussed) by removing the dis-synergy factor and that a small percentage (1 to 2 percent) of zero-emission (battery electric and fuel cell electric) vehicles be required in the vocational marketplace. Table 11 breaks down the stringency changes that CARB staff recommends.

Table 11: CARB Staff's Recommended Additional Stringencies for Alternative 4

Technology	MY 2024 Percent CO₂ Benefit	Penetration
Regional Aerodynamics(*)	3.5%	90%
Multipurpose Aerodynamics(*)	1%	50%
Electrified Accessories	3.0%	50%
Improved Engine Standard(**)	4.3%	N/A
Zero-Emission Technology	100%	1%

* The NPRM divides vocational vehicles into 3 subcategories: urban, multipurpose, and regional. For this stringency calculation, each subcategory was estimated to account for 33 percent of vocational fleet.

** Removal of dis-synergy factor results in a 0.3 percent improvement in the engine standard. Penetration rates of various engine technologies already included in the 4.3 percent value.

Research done at NREL shows that improved aerodynamics on vocational vehicles can result in significant fuel consumption reductions as high as 8 percent during cruise

cycles.²⁴ CARB staff recommends that a value of 3.5 percent be included in the vehicle stringency for regional vocational vehicles and 1 percent for multipurpose vocational vehicles due to aerodynamic devices. These values are in line with the observed fuel consumption benefit that front fairings and skirts achieved on the Urban Dynamometer Driving Schedule (UDDS) test cycle and CARB staff transient test during the NREL study, cycles similar to that of what Phase 2 proposes to use to simulate regional and multipurpose vocational vehicles, respectively. CARB staff notes that the vocational subcategory contains a vast range of regional and multipurpose vehicles and that while most regional vehicles will benefit from these technologies, not all vehicles (such as urban vocational) will be able to take advantage of the improved fuel efficiency of improved aerodynamics. Based on this fact and the research done at NREL, CARB staff believes that almost all regional vocational vehicles can benefit from aerodynamics, whereas only about half of the multipurpose subcategory can benefit from the aerodynamic devices, and is recommending penetration rates of 90 percent for regional vehicles and 50 percent for multipurpose vehicles. Vocational aerodynamic improvements are discussed further below under the comment entitled “Vocational aerodynamics: credit for aerodynamic devices on vocational box trucks.”

Electrified accessories can also reduce fuel consumption. The NPRM and CARB’s Technology Assessment²⁵ notes that electrified accessories can deliver a 1 to 3 percent fuel consumption benefit in vocational applications; however, U.S. EPA and NHTSA are currently only allowing off-cycle credits for this technology. As U.S. EPA and NHTSA’s Phase 1 rule did not consider electrified accessories either, this full 1 to 3 percent benefit can be obtained in the Phase 2 rulemaking. CARB staff recommends a fuel consumption benefit of 2 percent be applied to electrified accessories. CARB staff also notes that not every vocational application will be suited to best use this technology, therefore, CARB staff recommends a conservative penetration rate of 50 percent in the final MY stringency. An additional 0.3 percent emission benefit can be gained by removing the dis-synergy factor from the vocational engine standard. As stated in other comments, CARB staff believes the dis-synergy factor is unnecessary.

Furthermore, as noted previously, a 1 percent penetration for zero-emission vocational vehicles in 2024 is reasonable, given that, as detailed above, zero-emission vocational

²⁴ (NREL, 2015a) National Renewable Energy Laboratory, “Aerodynamic Drag Reduction Technologies Testing for Heavy-Duty Vocational Vehicles – Preliminary Results,” July 2015. See Attachment 1 for the Draft Report.

²⁵ (CARB, 2015c) California Air Resources Board, “Draft Technology Assessment: Engine/Powerplant and Drivetrain Optimization and Vehicle Efficiency,” June 2015, <http://www.arb.ca.gov/msprog/tech/techreport/epdo_ve_tech_report.pdf>

vehicles are already on the road in California (9 years ahead of 2024), and all-electric transit buses and delivery vehicles are in the early commercialization stage. Given the long lead time of the Phase 2 regulation, CARB staff believes it is reasonable to include zero-emission advanced technology vehicles in setting the stringency of the standards.

The NPRM proposes an overall 16 percent CO₂ emission benefit for the final MY vocational vehicles. The additional stringencies recommended by CARB staff result in additional incremental CO₂ benefits of about 2.5 percent for vocational vehicles. CARB staff therefore recommends U.S. EPA and NHTSA pursue Alternative 4 with a final stringency level of approximately 18.5 percent for vocational vehicles.²⁶

Comment on Topic Where NPRM Requests Comment

Affected document(s): Phase 2 Proposed Rules; RIA

Affected pages: NPRM 40186-40187, 40303-40304; RIA 2-134 to 2-135

Comment – Vocational aerodynamics: credits for aerodynamic devices on vocational box trucks

The NPRM requests comment on the approach to provide credits for aerodynamic devices on vocational box trucks. The Phase 1 standards did not address the aerodynamic characteristics of vocational vehicles; instead, vocational vehicles were assumed in the GEM model to have default aerodynamic characteristics, and manufacturers did not have the opportunity to obtain credits for installation of aerodynamic devices on vocational vehicles. The Phase 2 proposal still includes only default aerodynamic characteristics for vocational vehicles in GEM, but does allow manufacturers to apply for credit for some aerodynamic improvements to some vocational vehicles.

CARB staff appreciates and supports U.S. EPA and NHTSA offering vocational aerodynamic credits to manufacturers in Phase 2; however, we recommend the proposed Phase 2 standards be modified to include actual aerodynamic characteristics for the vocational vehicles that travel most at high speeds (the regional and multipurpose subcategories), and we recommend aerodynamic improvements for these

²⁶ (CARB, 2015c) California Air Resources Board, "Draft Technology Assessment: Engine/Powerplant and Drivetrain Optimization and Vehicle Efficiency," June 2015, <http://www.arb.ca.gov/msprog/tech/techreport/epdo_ve_tech_report.pdf> (NREL, 2015a) National Renewable Energy Laboratory Aerodynamic Drag Reduction Technologies Testing for Heavy-Duty Vocational Vehicles – Preliminary Results, July 2015. See Attachment 1 for the Draft Report.

vocational vehicles be included when setting the Phase 2 standards. CARB funded work to support Phase 2 development assessing various aerodynamic drag reduction technologies and proving their ability to reduce fuel consumption. Aerodynamic devices such as skirts and fairings are readily available in the marketplace for vocational vehicles; hence, there is no issue of technological feasibility. Not including potential aerodynamic improvements for these vocational vehicles, which spend much of their operation at high speeds where aerodynamics are important, represents a significant missed opportunity. As discussed further below, aerodynamic improvements to regional vocational vehicles could yield up to an 8 percent CO₂ and fuel consumption reduction on some duty cycles, and 6 percent in real world operation. Considering that U.S. EPA and NHTSA took into account improvements such as low friction axle lubricants that get only a 0.5 percent benefit when setting the proposed standards, it seems inappropriate to ignore potential aerodynamic improvements in standard setting.

If U.S. EPA and NHTSA are unwilling to modify the Phase 2 standards for regional and multipurpose vocational vehicles to include aerodynamic improvements, at a minimum, CARB staff recommends allowing generation of aerodynamic improvement credits more broadly than proposed. As the proposal is currently structured, such credits are allowed only in extremely narrow circumstances and CARB staff believes the credits would offer little if any incentive for manufacturers to actually pursue such aerodynamic improvements.

The discussion below provides information on the following topics:

- Availability of aerodynamic improvements for vocational vehicles;
- Data on potential fuel consumption reductions achievable via use of aerodynamic improvements;
- Potential additional Phase 2 GHG reductions if vocational aerodynamics were included; and
- Why vocational aerodynamic credits should be offered more broadly than proposed.

Availability of aerodynamic improvements for vocational vehicles

The aerodynamics of vocational vehicles can be improved either through changes to the shape of the vehicle during manufacture or through addition of aerodynamic devices such as skirts after manufacture.

As CARB staff has shared with U.S. EPA, at least one heavy-duty vocational truck manufacturer, Ford Motor Company (Ford), the second largest U.S. manufacturer of class 3 trucks, is interested in improving aerodynamics of vocational vehicles. Ford has investigated potential drag reduction and fuel consumption reduction achievable via improvements to some of their customers' vocational box trucks and has shared that data with U.S. EPA and CARB staff.

CARB staff also gathered information regarding aerodynamic devices and their applicability to vocational vehicles through literature reviews and stakeholder discussions. We contacted vocational aerodynamic technology manufacturers, including Deflektor, Freightwing, Ridge Corporation, SOLUS, Vorblade, Wabash Composites, Air Flow Deflector, Nose Cone, Laydon Composites, Fleet Engineers, Transtex, etc. Most of them produce devices, specifically skirts, for use on trailers. However, many indicated their devices could be customized to fit on vocational vehicles, and some have sold devices for use on these types of vehicles. For example, Freightwing and Ridge Corporation, who sell side skirts for box trucks intended to achieve a 2 to 4 percent reduction in fuel use, indicate their skirts can be used on any box truck as long as equipment underneath, such as storage boxes, lifts, etc., does not interfere and there is adequate space between axles.

We also contacted vocational fleets, including Waste Management, Aramark, Cintas, U-haul, and Pepsi/Frito Lay, to learn about their experience in using trucks with aerodynamic controls. Some had purchased vocational trucks with aerodynamic controls for their fleets. For example, Pepsi/Frito Lay reported that in the field their aerodynamic improvements had given them 1 to 1.5 percent fuel savings. In its class 3 Sprinter truck design, Frito Lay changed the box geometry, added side skirts, and a front lip. In its class 6 trucks, it installed nose cones.

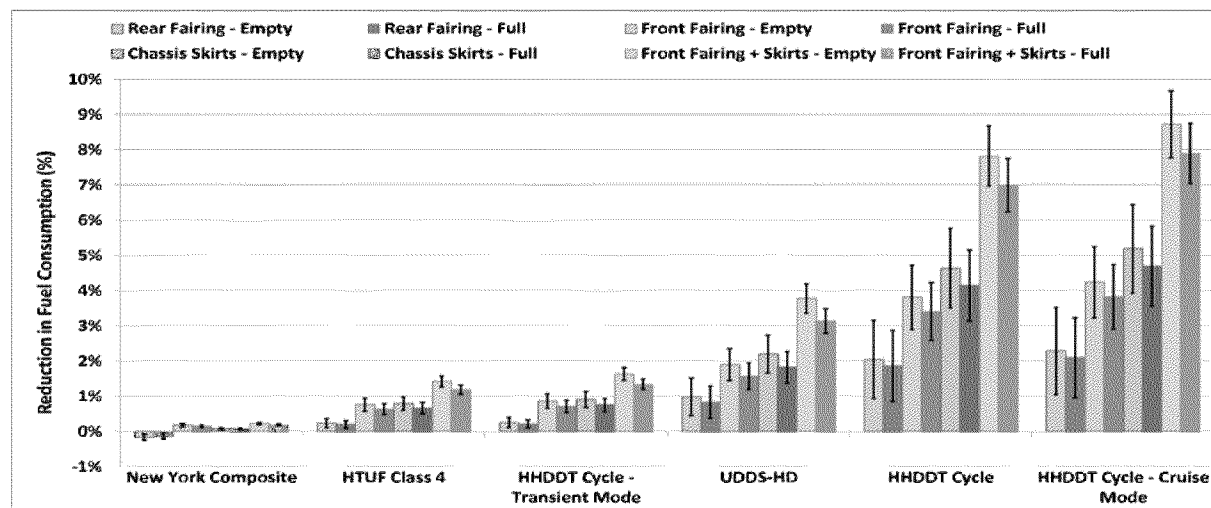
Data on potential fuel consumption reductions achievable via use of aerodynamic improvements

CARB staff gathered available data on the drag and fuel consumption reductions achievable via aerodynamic improvements to vocational vehicles. For example, we obtained data from Auto Research Center, a research facility in Indianapolis that provides various test services including but not limited to wind tunnel testing and computational fluid dynamics. Auto Research Center met with us and discussed their current fuel economy efforts specific to vehicle aerodynamics. Auto Research Center tested an aerodynamic technologies package that included various aerodynamic

devices such as side skirts, fairings, and others for a class 5 box truck. The box truck was tested in a wind tunnel with data recorded at yaw angles of 0, 3, and 6 degrees. The resulting percentage fuel economy savings at 55 mph were 2.5 percent with top fairing, 1.3 percent with side skirts, 0.5 percent with wheel covers, and 2.2 percent with smooth underfloor. We shared this data with U.S. EPA staff in June 2015.

After gathering available data, we concluded there was a paucity of data concerning the effectiveness of aerodynamic technologies for vocational vehicles. To help fill the gap, CARB contracted with U.S. Department of Energy's NREL to perform coastdown and on-road test runs with and without aerodynamic devices such as skirts, front and rear fairings, and wheel covers to quantify their potential benefits for class 6 and class 4 box trucks. A report describing NREL's findings is attached. The most important findings are summarized below:

- All devices except wheel covers showed a benefit: There were six coastdown test configurations: 1) baseline, no aerodynamic device, 2) wheel covers, 3) front fairing, 4) chassis skirts, 5) front fairing and skirts, and 6) front fairing and skirts and wheel covers. All test configurations, except adding just wheel covers, indicated a statistically significant change in total road load force in the 45–68 mph range. Front fairings and chassis skirts were the most effect devices tested, with both showing improvements on the order of 6 percent individually for total road load force. When front fairings and skirts were tested together, the improvement increased to 8 to 10 percent.
- Emission benefits up to 8 percent, depending on duty cycle: To determine the significance of their aerodynamic devices in real world operation of vocational vehicles, NREL applied their test results to a variety of test cycles commonly used for vocational vehicles. As shown in the chart below, for vocational cycles that contain a significant portion of high speed driving, the potential benefits of aerodynamic devices can be significant, up to 8 percent.

Figure 3: Simulated Drive Cycle Fuel Consumption Results

CARB staff appreciates that U.S. EPA and NHTSA referenced the data from CARB and NREL testing in the Phase 2 proposal. We encourage U.S. EPA and NHTSA to utilize other vocational aerodynamic data that they have obtained from other sources (e.g., Ford and Auto Research Center data), which will help particularly in the class 3 to 5 categories.

The potential emission reductions from use of aerodynamic devices on vocational vehicles are significant and – in CARB staff’s opinion – too large to ignore in Phase 2. To estimate the potential impact of vocational aerodynamics on actual vocational vehicle emissions, we made an estimate of this impact in two ways. First, we used actual duty cycle data from NREL’s Fleet DNA (a database of commercial fleet vehicle operating data) for 553 days of driving data from 36 delivery trucks and, as shown in Table 12 below, and detailed in the attached spreadsheets, found that these trucks could achieve more than a 5 percent reduction in fuel consumption via use of aerodynamic devices.²⁷

²⁷ See Attachment 2 for Use of Aerodynamic Devices for Actual Vocational Trucks in NREL Fleet DNA Database Spreadsheet.

Table 12: Potential Fuel Consumption Reductions via Use of Aerodynamic Devices for Actual Vocational Trucks in NREL Fleet DNA Database

	Chassis Skirt	Front Fairing	Rear Fairing	Front Fairing and Chassis Skirt
Fuel Consumption Reduction through use of Aerodynamic Devices	2.8-3.3%	2.7-3.7%	1.5-2.1%	5.6%

Next, we modeled potential reductions for vocational vehicles modeled in CARB's EMFAC database. Using duty cycles for medium heavy-duty out-of-state and in-state trucks with GVWR less than or equal to 26,000 lbs, we arrived at similar results to those for the NREL fleet DNA data, potential fuel consumption reductions of about 6 percent.²⁸ Given that the total reductions from vocational vehicles for the proposed Phase 2 program are only 16 percent, ignoring potential fuel consumption and emission reductions of 6 percent is clearly a significant and regrettable missed opportunity.

Why vocational aerodynamic credits should be offered more broadly than proposed

U.S. EPA and NHTSA have proposed that credits for aerodynamic improvements be available to manufacturers only of trucks whose configuration and dimensions are essentially identical to those CARB and NREL tested and only for aerodynamic devices of identical weight to those tested. U.S. EPA and NHTSA neglected to consider other relevant data submitted to them during development of the Phase 2 standards (including data from Ford and Auto Research Center, mentioned above).

In addition, the proposed method is overly restrictive and will inappropriately limit the vehicles that could receive any credit for using vocational devices to ones essentially identical to the two trucks CARB and NREL tested. We believe this restriction would make the aerodynamic credit provisions unlikely to be used widely, or at all, by vocational vehicle manufacturers. We also believe this restriction ignores the physical reality that devices such as skirts are likely to provide fuel economy benefits for trucks of a variety of frontal areas, lengths, and shapes. Although as discussed above CARB staff recommends that aerodynamic improvements be included when setting the standards for vocational vehicles and in GEM, should U.S. EPA and NHTSA decline to

²⁸ See Attachment 3 for Potential Fuel Consumption Reductions via Use of Aerodynamic Devices for Medium-Heavy Duty Vehicles in CARB's EMFAC 2014 Database.

do that, at minimum, we recommend allowing credit for all class 3 to 7 straight trucks with a van or box shaped body.

CARB staff believes the data available show convincingly that aerodynamic devices can reduce fuel consumption and GHG emissions from vocational vehicles and believes credit for such devices should be offered more broadly, not just to trucks identical to the two we tested. Especially given the diversity of vocational vehicles offered in the market, it would not be feasible to perform testing on every possible vehicle, coupled with every aerodynamic device, nor would such testing be a good use of scarce public agency resources. NREL concluded, "... as long as the box sits above the rear wheels without a wheel well, there will likely be a spot for chassis skirts, and as long as the box extends above the front cab, there will likely be an opportunity for a front fairing. These devices may vary in size and aerodynamic benefit for different platforms, but the benefit likely has a closer tie to vehicle shape and body style rather than a specific weight class or dimension."²⁹

Elsewhere in the Phase 2 rulemaking, U.S. EPA and NHTSA use similar logic to what we are proposing to justify how aerodynamic data for 53-foot dry vans can be translated to vans and box trailers in lengths different than 53 feet (page 40261 of the NPRM and 40 CFR 1037.501(g)). Putting aerodynamic devices (i.e., skirts) on vocational trucks is similar to putting skirts on trailers, and hence it is unclear why U.S. EPA and NHTSA did not apply this same logic to vocational aerodynamics.

CARB staff also believes U.S. EPA and NHTSA are overly restrictive in limiting credit to devices of equivalent weight to those tested. We recommend allowing credit for aerodynamic devices of differing weights because their weight varies for various types of vehicles and brands of devices. We recommend that U.S. EPA and NHTSA follow an approach for vocational aerodynamic devices similar to the approach they describe on pages 40280 to 40281 of the published NPRM for trailer aerodynamic devices. Under that approach, device manufacturers could certify their aerodynamic devices, then chassis manufacturers, including secondary manufacturers, can install the aerodynamic devices and obtain credits without having to retest for every individual vehicle. The approach also lays out the procedures for combining the effects of several devices.

To facilitate application of the test data available to a broader variety of vehicles, we recommend U.S. EPA and NHTSA consider use of a percent delta coefficient of drag x

²⁹ (NREL, 2015a) National Renewable Energy Laboratory, "Aerodynamic Drag Reduction Technologies Testing for Heavy-Duty Vocational Vehicles – Preliminary Results," July 2015, page 10. See Attachment 1 for the Draft Report.

area (CdA) instead of a flat CdA. CARB staff recommends using a ratio approach by applying a percent CdA change, not an m² CdA. For example, if we tested a vocational truck and found that a skirt could reduce CdA 6 percent, then a smaller or bigger truck could apply that same percent change to their CdA. We encourage U.S. EPA and NHTSA to consider this ratio approach.

Support Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40287-40288

Comment - Assignment of vocational subcategories

The NPRM requests comment on the assignment of vocational chassis to regulatory categories. CARB staff supports U.S. EPA and NHTSA's assignment of regulatory subcategories for vocational vehicles. We recognize the broad range of uses in the vocational sector which dictates the use of many different test cycles to fully encompass all of the vocational duty cycles. However, there is also a need for simplicity in regulating vocational manufacturers to reduce unnecessary burden on both manufacturers and regulators. The proposal of nine subcategories for the vocational sector addresses and balances these two competing factors. The proposal to allow manufacturers to request a different duty cycle would provide necessary flexibility for those vocational vehicles that are not properly accounted for by these simplified subcategories.

Comment on Topic Where NPRM Requests Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40292-40294

Comment - Emergency vehicle provisions

CARB staff understands the unique nature and uses of emergency vehicles and supports the proposal's provisions to allow emergency vehicles to certify to less stringent standards with reduced compliance procedures than for other vocational vehicles. California Statute and many of CARB staff's in-use regulations similarly have special provisions for emergency vehicles. CARB staff also understands that current idle reduction technologies applicable to the Phase 2 vocational standards may not be sufficient to power all of the on-board electronics required by emergency vehicles.

Therefore, CARB supports proposed emergency vehicle standards that do not require the use of specific idle reduction technologies.

Additionally, because the proposed compliance method for emergency vehicles is simplified compared to that of other Phase 2 vocational vehicles, emergency vehicle manufacturers would not follow the otherwise applicable Phase 2 approach of entering an engine map into GEM. Instead, CARB staff supports the proposed equation-based compliance approach using a Phase 1-style GEM interface with a default engine simulated in GEM is appropriate for the emergency vehicle category.

Class 2b/3 Pickup and Van Standards

Oppose/Requested Change Comment

Affected document: Phase 2 Proposed Rules

Affected pages: 40334-40390

Comment - Proposed heavy-duty pickups and vans (class 2b/3) standards should be strengthened

The NPRM solicits comment on Alternative 4 for heavy-duty pickups and vans, which would result in approximately the same Phase 2 program stringency increase of about 16 percent compared to Phase 1 but would do so two years earlier, in MY 2025 rather than in MY 2027. Alternative 4 would require CO₂ reductions of 3.5 percent per year from 2021 to 2025, whereas Alternative 3 would require CO₂ reductions of 2.5 percent per year from 2021 to 2027. We encourage U.S. EPA and NHTSA to accept Alternative 4 rather than Alternative 3 for heavy-duty pickups and van.

CARB staff believes that Alternative 4 for heavy-duty pickups and vans is technologically feasible, cost-effective, and superior to Alternative 3 for the following reasons:

Alternative 4 achieves greater emission benefits and greater net societal benefits than Alternative 3. As summarized in Table 13, Alternative 4 for heavy-duty pickups and vans would achieve an additional 21 MMT of CO₂ reductions and \$2.3 billion in societal benefits in the U.S.

Table 13: Heavy-duty Pickups and Van Alternative 3 and 4 Comparison (U.S. Benefits through MY 2029)

	Alternative 3	Alternative 4	Difference
CO ₂ reduction [MMT]	118	139	21
Net Social Benefit [\$billion]	23.4	25.7	2.3

(from the NPRM, Table VI-6, versus flat baseline)

- The projected payback period for Alternative 4 is still acceptable and only a few months longer than the projected payback period for Alternative 3.** Alternative 4 is projected to pay back in 34 months versus 26 months for Alternative 3 (or 34 months versus 31 months if a dynamic baseline is used), and hence adds only 3 to 8 months to the expected payback period. Both alternatives pay back in the third year of ownership which is still expected to be well within the period vehicles are owned by the first buyer.
- Alternative 4 is significantly less stringent than the standards light-duty pickup trucks will be meeting in the same timeframe.** Heavy-duty pickups and vans are very similar to light-duty pickup trucks but have higher load and towing capacity requirements. Both groups of vehicles are manufactured by many of the same manufacturers (Ford, General Motors, and Fiat/Chrysler) and utilize comparable engine and vehicle technologies. For this reason, both groups would have similar routes to achieving GHG emission reductions. Furthermore, continuing availability of advanced technology credits (see page 69) would provide additional technology flexibility to manufacturers in achieving reductions beyond alternative 3. For light-duty pickups, U.S. EPA and NHTSA have set GHG emission standards that would reduce emissions by 3.5 percent per year from MYs 2017-2021 and 5 percent per year from MYs 2022-2025. For a typical light-duty pickup, the resulting CO₂ standard would be 203 grams per mile (g/mi) by 2025.

Alternative 4 would require a 3.5 percent per year improvement in CO₂ emission reductions from MYs 2021-2025 and result in an average CO₂ standard of 458 g/mi in 2025. Even under Alternative 4, the standard for heavy-duty pickups and vans would be more than double the allowable CO₂ emissions for light-duty trucks in the same time period.

Oppose/Requested Change Comment

Affected document: Phase 2 Proposed Rules

Affected pages: 40341

Comment - The test weight bins should be changed in order to allow for more realistic testing of heavy-duty pickups and vans due to mass reduction

CARB staff believes weight reduction can be a cost-effective technology that can achieve significant CO₂ reductions. A prime example of the effectiveness of this technology is the recently redesigned F150 which makes extensive use of aluminum. In fact, all manufacturers are expected to incorporate vehicle weight reduction across their light-duty fleet (where emission test weight (ETW) bins are significantly smaller) in response to the 2017-2025 GHG requirements. As currently structured, the ETW bins for class 2b and 3 vehicles (500 lbs) tend to discourage the use of this technology since significant weight reduction is required before any benefit can be demonstrated over the applicable emission test cycles. Narrowing the ETW bins could encourage early implementation of vehicle weight reduction across a vehicle product line as well as providing manufacturers with increased flexibility in using weight reduction as part of their technology portfolio. Another benefit of reducing ETW bins is that the test results would more accurately reflect vehicle GHG emissions. Accordingly, CARB staff recommends restructuring the compliance process to encourage vehicle weight reduction by reducing the applicable ETW bins to 125 pound increments.

Oppose/Requested Change Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40334-40335, 40389-40390, proposed 40 CFR 1037.621

Comment – The heavy-duty pickups and vans technology list should include battery electric or fuel cell electric technology, hybridization of diesel engines and dieselization

CARB staff has significant concerns regarding the following assertion:

As discussed in Section I, the agencies request comment on the proposed approach for the advanced technology multipliers for heavy-duty pickups and

vans as well as the other heavy-duty sectors, including comments on whether or not the credits should be extended to later model years for more advanced technologies such as EVs and fuel cell vehicles. These technologies are not projected to be part of the technology path used by manufacturers to meet the proposed Phase 2 standards for heavy-duty pickups and vans. (page 40389 of the NPRM)

A large population of heavy-duty pickups and vans are used as last-mile delivery vehicles that return to a yard or terminal on a daily basis. Last-mile delivery vehicles will be ideal candidates for zero-emission technologies, especially fuel cell electric technology. With this understanding, CARB staff is considering regulations that will incentivize and/or mandate zero-emission technologies in the heavy-duty sector within the Phase 2 timeframe. Specifically heavy-duty pickups and vans, especially in last-mile delivery applications, is an area that CARB staff considers fertile for greater adoption of zero-emission technologies in the near-term. CARB staff believes that the federal Phase 2 standard is important to incentivize early adoption and deployment of zero-emission technologies in this category.

The NPRM requests comment on the proposed technology list that would be used by manufacturers to comply with the heavy-duty pickup and van standard. CARB staff recommends that the list include battery electric and fuel cell electric technologies.

The list of technologies should also include hybrid diesel technologies as CARB staff believes strong hybrids in the heavy-duty pickup and van sector will be widely available in the 2025 timeframe. Currently, XL Hybrids and Crosspoint Kinetics have commercially-available hybrid systems for both new purchases and existing vehicle conversions.

XL Hybrids currently has hybrid systems for box trucks (Ford E-350/E-450 cutaway, Ford E-450 strip chassis), Reach walk-in commercial vans (Isuzu/Utilimaster), cargo vans and passenger wagons (Chevy Express 2500/3500, GMC Savana 2500/3500, Ford E-150/E-250/E-350, Ford Transit), shuttle buses (Ford E-350/E-450 cutaway, Ford E-450 strip chassis, GM 3500/4500 cutaway (available September 2015)), and commercial stripped chassis (F59 super duty) for walk-in van fleets.

Crosspoint Kinetics currently has hybrid systems for a variety of new class 3-7 trucks and buses, including a retrofit option for existing vehicles. Their systems have been

tested and approved at Altoona and have been certified by the Federal Transit Administration.

CARB staff believes that if there is a projected demand created by regulatory Phase 2 (Alternative 4) requirements, these two companies, and likely other companies, would make additional hybrid systems available for the targeted heavy-duty truck and van sector. Since the basic hybrid system designs from XL Hybrids and Crosspoint Kinetics have been proven in actual fleet operations, additional demands for their products would lower the price of hybrid technologies due to increased production. The technology could also be more economically designed for other vehicle platforms, creating additional growth and development for hybrids in general.

Furthermore, U.S. EPA and NHTSA's own modeling on the projected level of hybridization penetration necessary by 2030 to comply with the different regulatory alternatives showed that for two companies (Daimler and Nissan), no hybridization is necessary to comply with Alternative 4 (Tables VI-25, page 40378 of the NPRM, and VI-26, page 40378-40379 of the NPRM, respectively). Another company, Fiat/Chrysler needs only 3 percent hybridization penetration to comply with Alternative 4 (Table VI-24, page 40376-40377 of the NPRM) and Ford needs to have 14 percent hybridization penetration to meet Alternative 4 requirements (Table VI-23, page 40375-40376 of the NPRM). Of the major manufacturers, only GM would need to have a significant level of hybridization penetration at 79 percent to comply with Alternative 4 (Table VI-22, page 40375 of the NPRM). This lends further support for the feasibility for Alternative 4, which CARB staff recommends.

Trailer Standards

Comment on Topic Where NPRM Requests Comment

Affected document(s): Phase 2 Proposed Rules; Redline/Strikeout of EPA Proposed Regulatory Text Relative to Current CFR (Redline Document)

Affected pages: NPRM 40253 - 40285; Redline Document: 137-138

Comment – Compliance requirements for trailers, trailer classification systems; Add aero requirements for non-box trailers; Change 50-foot demarcation to 47-feet; Remove belly boxes from the list of work-performing devices that inhibit the use of aerodynamic devices

The NPRM includes U.S. EPA and NHTSA’s proposal to regulate greenhouse gas emissions associated with trailers for the first time. The regulation will affect most trailers designed for use on highways. The proposed regulation requires that all affected trailers use LRR tires and ATIS, and that most box van trailers also use aerodynamic technologies.

Although most aerodynamic technologies developed up until now have been designed for box van trailers, other trailer types, such as tanker trailers and flatbed trailers also stand to gain appreciable fuel economy benefits from these technologies. In wind tunnel testing conducted at the Auto Research Center in conjunction with Freight Wing, adding side skirts to a flatbed trailer reduced its wind-average drag coefficient by 8 to 9 percent at 50 mph, equivalent to a fuel savings of 3.5 to 4 percent at 50 mph, with larger savings possible at higher speeds.³⁰ Manufacturers are working on developing technologies for these trailers. For example, Wabash has already released its DuraPlate Tanker AeroSkirt product. CARB staff believes that there are significant benefits from the use of aerodynamic equipment on non-box trailer types, especially for longer non-drop-deck flatbed trailers (greater than 50 feet in length). For this reason, CARB staff recommends that U.S. EPA and NHTSA consider adding aerodynamic equipment requirements on certain non-box trailers. For example, as part of Alternative 4, longer non-drop-deck flatbed trailers should start with a 5 percent adoption rate of Bin III technology by the 2021 MY, increasing to 15 percent by the 2024 MY. CARB staff believes that this standard for long non-drop-deck flatbed trailers is feasible given the relatively low adoption rate of 5 percent combined with the extra lead time by starting

³⁰ See Attachment 5 for Freight Wing ARC Wind Tunnel Flatbed Testing Summary Results.

the requirements in 2021, three years after aerodynamic equipment requirements will have taken effect for box van trailers.

In addition to distinguishing between box van trailers and non-box trailers, the proposed regulation also subdivides box van trailers into nine subcategories, each with different standards. The division of box van trailers is based on whether the trailer is a dry or refrigerated van, whether it is long (over 50 feet) or short (50 feet and below), and whether positions where aerodynamic equipment are typically installed are occupied by a work-performing device. CARB staff is supportive of this classification system to determine the stringency of the requirements to which a trailer is subjected since it recognizes the fact that there is a greater availability of aerodynamic technologies designed for long box van trailers and also takes into account the presence of work-performing devices that may partially restrict the installation of aerodynamic devices. However, CARB staff recommends two changes to this classification system. First, CARB staff believes that the 50-foot demarcation should be changed to a 47-foot demarcation to account for the fact that 48-foot trailers are much more similar to 53-foot trailers than they are to 28-foot trailers in terms of length and available aerodynamic technologies; and 28-foot trailers are typically used in tandem, limiting their ability to use rear aerodynamic technologies, unlike with 48-foot trailers. 48-foot dry van trailers constitute nearly 6 percent³¹ of the dry van trailer population. Hence, including 48-foot van trailers in the long box van trailer category, which essentially lowers the standard for these trailers by 42 to 45 percent, can lower overall emissions attributed to long and short dry box van trailers by about 2.5 percent, a significant amount.

Second, U.S. EPA and NHTSA should remove belly boxes from the list of work-performing devices that inhibit the use of aerodynamic devices where the belly box is located. The NPRM defines “non-aero” and “partial-aero” trailers as trailers that have at least one of the work-performing features listed in paragraph (a)(1)(i) of the proposed 40 CFR 1037.107 in the redline version of U.S. EPA regulation. By including belly boxes on the list of work-performing devices, it is possible that certain fleets may exploit this as a loophole by specifying a small belly box in their trailer order instead of having side aerodynamic equipment installed. From CARB’s experience in implementing the Tractor-Trailer GHG Regulation, we know it is feasible to install a modified trailer skirt around the belly box. A wind tunnel testing project conducted jointly by Kentucky Trailer

³¹ (ICCT, 2014) The International Council on Clean Transportation, “Recommendations for Regulatory Design, Testing, and Certification for Integrating Trailers into the Phase 2 U.S. Heavy-Duty Vehicle Fuel Efficiency and Greenhouse Gas Regulation,” February 2014, <http://www.theicct.org/sites/default/files/publications/ICCT_trailer-test-procedure_20140218.pdf>.

and Freight Wing at Auto Research Center showed that adding a modified trailer skirt around the belly box actually resulted in increases in fuel savings compared to the same trailer with unmodified trailer skirts and no belly box.³² As a result, CARB has modified its “Implementation Guidance for the Tractor-Trailer GHG Regulation”³³ to allow the addition of a modified trailer skirt, as a CARB pre-approved modification, around a belly box. Pre-approval is based on testing demonstrating that a particular modification increases the wind averaged coefficient of drag (Cdw) by no more than 10 percent of the difference between the Cdw of the zero equipment baseline and the Cdw of the same trailer with the skirt. CARB staff has not experienced any difficulties implementing this provision, and recommends that U.S. EPA and NHTSA remove belly boxes from the list of work-performing devices that inhibit the installation of an aerodynamic device at the location where the belly box is located. Instead, U.S. EPA and NHTSA should identify belly boxes as a work performing feature that may require the installation of an aerodynamic device modified according to predetermined guidelines to be fitted around the belly box. This may require the preparation of an aerodynamic modification guidance document similar to that of CARB.

The proposed rule requires the use of LRR tires for all trailer types. The LRR tire requirement for short and long box type trailers begins with an 85 percent adoption rate of Level 1 tires, which have a coefficient rolling resistance of 5.1 (kilograms per ton) kg/ton, equivalent to today’s SmartWay-verified tire models, with the remaining 15 percent using the baseline tires with a coefficient of rolling resistance of 6.0 kg/ton. CARB staff believes that the adoption rate for Level 1 tires can be increased to at least 95 percent given that industry has already had years of experience with U.S. EPA’s SmartWay program and that the Truck Trailer Manufacturers Association stated in a October 16, 2014 letter to U.S. EPA informing them that SmartWay-verified LRR tires are now standard with new trailers. Furthermore, U.S. EPA and NHTSA propose a 100 percent Level 1 tire adoption rate for non-box trailers and non-aero trailers, indicating that it should be possible for box-type trailers to meet a higher adoption rate as well.

³² See Attachment 6 for Auto Research Center, Class Eight Semi Truck Aerodynamic Fuel Economy Component Test, 2011.

³³ (CARB, 2012) California Air Resources Board, “Implementation Guidance for the Tractor-Trailer GHG Regulation,” October 2012, <<http://arb.ca.gov/cc/hdghg/documents/modaeroguidev1.pdf>>.

Comment on Topic Where NPRM Requests Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40253 - 40285

Comment – Stringency of trailer standard, alternative 4 recommended

The NPRM also requests comments on whether Alternative 3 or Alternative 4 should be the preferred alternative. Both alternatives provide a gradual increase in the adoption rates of aerodynamic technologies, leading to the same final stringency, except that Alternative 4 arrives at the final stringency three years earlier. The main difference in the implementation of the two alternatives is the second phase of standards, which occurs during the 2021 MY. Under Alternative 4, the adoption rates specified in Alternative 3's second phase is skipped so that Alternative 3's 2024 standards take effect in 2021, and Alternative 3's 2027 standards take effect in 2024.

Since most of the requirements for trailer aerodynamic equipment can be met with technology that is already available, the difference in cost from accelerating the adoption of these technologies by three years would be low. Table I-11 in the NPRM provides the costs of the technology needed on a baseline trailer to comply with the Phase 2 regulation, under Alternatives 3 and 4 and is provided here for reference.

TABLE I-11—PER VEHICLE COSTS RELATIVE TO BASELINE 1a

	3 Proposed standards			4	
	MY 2021	MY 2024	MY 2027	MY 2021	MY 2024
Per Vehicle Cost (\$) ^a Trailers	900	1,010	1,170	1,080	1,230

Note:

^a Per vehicle costs include new engine and vehicle technology only; costs associated with increased insurance, taxes and maintenance are included in the payback period values.

As indicated in the table, the added cost per trailer to meet Alternative 3 MY 2024 standards is \$1010 (2012 dollars); whereas the cost to meet the Alternative 4 MY 2021 standards (the equivalent of the MY 2024 Alternative 3 standards) is \$1080 (2012 dollars), a difference of \$70, or 6.9 percent. Similarly, the difference in cost to meet the final stringency requirements of the two alternatives is \$60, or 5.1 percent.

The differences in compliance cost should then be viewed in terms of their effect on the payback period, since the adoption of Alternative 4 requires more aerodynamic trailers sooner, leading to greater fuel savings earlier. The NPRM provides the results of analyzing the payback periods of the two alternatives, and have determined that choosing Alternative 4 over Alternative 3 results in negligible impacts on the payback periods, with both alternatives having payback periods of 2 years, as shown below in the NPRM's Table I-12.

TABLE I-12—PAYBACK PERIODS FOR MY2027 VEHICLES UNDER THE PROPOSED STANDARDS AND FOR MY2024 VEHICLES UNDER ALTERNATIVE 4 RELATIVE TO BASELINE 1a

[Payback occurs in the year shown; using 7% discounting]

	Proposed standards	Alternative 4
Tractors/Trailers	2nd	2nd

While Tables I-11 and I-12 show that there is a negligible impact on the economics of fleets that operate trailers, it is also important to compare the impacts of the two alternatives in terms of the overall costs and benefits of the regulation as well. Table X-1 and X-3 in the NPRM provide a comparison of the net costs and benefits of the two alternatives for the tractor-trailer vehicle as a whole, in which trailer benefits play a major part. Under both the 3 percent discount rate and the 7 percent discount rate assumptions, Alternative 4 provides a greater net benefit, after subtracting out the costs, over the 2018 to 2029 timeframe.

Table 14: Summary of Tables X-1 and X-3 for Tractor-Trailers (values in \$billion)

	Alt 3 (3% Discount)	Alt 4 (3% Discount)	Alt 3 (7% Discount)	Alt 4 (7% Discount)
Benefit	217.5	236.7	130.0	142.2
Cost	15.5	18.1	10.3	12.1
Net Benefit	202.0	218.6	119.7	130.1

Upon examining the cost-benefit analysis provided in the NPRM and differences in stringency between the two alternatives, and drawing upon CARB's experience in implementing its Tractor Trailer GHG Regulation, CARB staff recommends Alternative 4. Under Alternative 4, by 2021, 65 percent of long box van trailers (defined in the NPRM as those over 50 feet) would employ Bin V aerodynamic technology, which is equivalent to SmartWay Elite levels, which became effective in 2014. CARB staff believes it is reasonable to assume 65 percent penetration of such technology by 2021,

which will be five years after the adoption of the proposed Phase 2 regulation and seven years after SmartWay Elite levels became effective. In addition to recommending Alternative 4, CARB staff also recommends two modifications to the stringency levels. First, given that Bins I through VII can all be attained using existing technology, CARB staff believes that the final phase of standards should incorporate some adoption of Bin VIII, which represents as yet undeveloped technology. Having seen how quickly aerodynamic technology has evolved since the SmartWay's launch in 2004, CARB staff believes that these technologies will continue to evolve at a rapid pace for the next nine years, when the final phase of standards in Alternative 4 takes effect. As such, CARB staff recommends that the stringencies of Alternative 4 for long box dry van trailers should be modified to include some adoption of Bin VIII technology trailers, such as 10 percent Bin V, 45 percent Bin VI, 40 percent Bin VII, and 5 percent Bin VIII, by 2024. Using the compliance equation given in the proposed 40 CFR 1037.515 in the redline version of the regulation, this modification reduces the final standard by a further 0.24 grams of CO₂ per ton-mile. CARB staff believes that it is important to include at least a nominal adoption rate of Bin VIII technologies in order to move beyond off-the-shelf technology and push for further development of aerodynamic technologies. In the event that such technology is still unavailable by the 2024 MY, the 5 percent adoption rate is low enough such that manufacturers would still be able to meet the stringency by slightly adjusting the percent adoption rates between Bins V and VII.

Another recommended modification relates to the final stringencies of long box refrigerated van trailers. From the RIA, the trailer-to-tractor ratio of refrigerated vans (2:1) is lower than that of dry vans (3:1), which means that a refrigerated van trailer is typically used on the road more than dry van trailers. Because of the higher use experienced by refrigerated van trailers, investments in aerodynamic equipment for refrigerated trailers can generate faster, and larger, returns on investment. In addition, because of the higher base cost of a refrigerated trailer (roughly twice as much as a dry van trailer³⁴), the incremental cost of the required aerodynamic equipment would be a much smaller percentage of the base cost of a refrigerated van trailer than it would be for a dry van trailer. For these reasons, CARB staff believes that the final stringency level (applicable to MY 2024 under Alternative 4) of long box refrigerated van trailers should be adjusted so that the combined adoption of Bins VI and VII should match or exceed that of long box dry van trailers. For example, the Alternative 4 MY 2024 long

³⁴ (ICCT, 2013) The International Council on Clean Transportation, "Trailer technologies for increased heavy-duty vehicle efficiency - Technical, market, and policy considerations," June 2013, <http://www.theicct.org/sites/default/files/publications/ICCT_HDVtrailerTECHS_20130702.pdf>.

box refrigerated van trailer adoption rates should be as follows: 10 percent Bin V, 60 percent Bin VI, and 30 percent Bin VII. Using the compliance equation from the proposed 40 CFR 1037.515 in the redline version of the regulation, this modification reduces the final standard by a further 0.41 grams of CO₂ per ton-mile.

Comment on Topic Where NPRM Requests Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: NPRM 40278 – 40279; RIA 2-161 to 2-162

Comment –Exclusively using zero-yaw testing for trailer aerodynamic performance

U.S. EPA and NHTSA are proposing to determine the delta CdA for trailer aerodynamics using only the zero-yaw (or head-on wind) values for coefficient of drag. U.S. EPA and NHTSA are not proposing a reference method (i.e., the coastdown procedure in the tractor program). Instead, they are proposing to allow manufacturers to perform any of the proposed test procedures (e.g. coastdown, constant-speed, wind tunnel, computational fluid dynamics (CFD)) to establish a delta CdA. Since the proposed coastdown and constant speed procedures include wind restrictions, U.S. EPA and NHTSA are proposing to only accept the zero-yaw values from aerodynamic evaluation techniques that are capable of measuring drag at multiple yaw angles (e.g., wind tunnels and CFD) to allow cross-method comparison and certification.

CARB staff is concerned that using only the delta of the zero-yaw values to determine the delta CdA for trailer aerodynamics may not accurately reflect the aerodynamic benefit from improved trailer aerodynamics. U.S. EPA and NHTSA recognize that the benefits of aerodynamic devices for trailers can be better seen when measured considering multiple yaw angles. This is illustrated in Figure 22 from the RIA (shown below - Figure 4). The wind- average results were calculated at 55 mph vehicle speeds, consistent with the procedures in 40 CFR 1037.810. The wind-averaged analysis consistently results in a larger improvement (i.e., delta CdA) than the zero-yaw results.

Therefore, CARB staff is recommending that U.S. EPA and NHTSA reestablish the performance bins and resulting proposed trailer standards based on wind-averaged drag results. Making this change is critical if the trailer standards are to reflect real-world gains in fuel efficiency and GHG reduction. In the real world, it is unreasonable to

assume that tractor-trailers always travel when winds are coming straight at the vehicle. If the test method does not reflect wind-averaged drag, manufacturers run the danger of developing aerodynamic products that result in meeting standards that result in minimal or no benefit in real-world conditions. The opposite could also be true, where a technology that shows minimal benefit under zero yaw analysis can show measurable benefit when wind-averaging over multiple yaw angles are considered. This is illustrated in Figure 22 (shown below - Figure 4) for the gap fairing technology tested.

CARB staff agrees with U.S. EPA and NHTSA decision to not require a reference test method, in order to reduce the test burden for manufacturers and allow them to choose an appropriate test method for their need and resources. However, the test method used must be capable of measuring wind-averaged drag. Wind tunnel testing and CFD are two viable methods. The use of reduced scale wind tunnel testing to evaluate the wind-averaged drag of aerodynamic technologies is common practice amongst trailer manufacturers. Several such manufacturers have submitted wind tunnel test results to CARB staff in accordance with requirements of California's Tractor-Trailer GHG Regulation.

Figure 4: Comparison of Zero Yaw and Wind-Averaged Drag Results³⁵

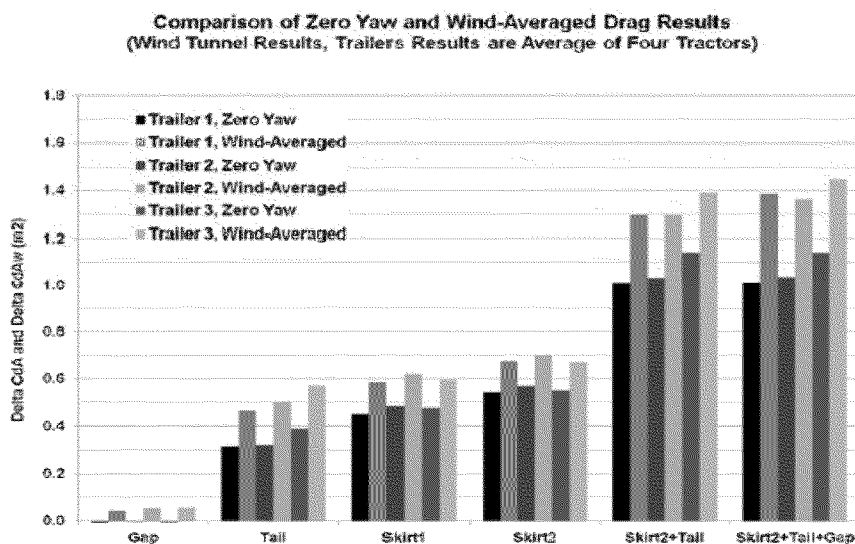


Figure 2-22 Comparison of Zero Yaw and Wind-Averaged Drag Results

³⁵ Figure 22 from the RIA, page 2-162

Comments on Proposed Phase 2 Provisions

Credits

Comment on Topic Where NPRM Requests Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40252

Comment –Tractor- off-cycle technology credits, penetration rate

The NPRM requests comment on providing credit for off-cycle innovative technologies.

We agree with the concept of providing such credits, as credits can be an incentive for innovation. For example, such credits could support continued innovation in connected vehicle technologies such as platooning. The proposed Phase 2 standards were developed including benefits for predictive cruise control, a type of connected vehicle technology, and CARB staff supports allowing off-cycle credits for other connected vehicle technologies such as platooning. As discussed further in CARB's Draft Technology Assessment: Engine/Powerplant and Drivetrain Optimization and Vehicle Efficiency,³⁶ platooning is being tested in Southern California and can yield fuel consumption reductions of 10 to 21 percent.

We also agree with the proposed removal of some types of off-cycle credits allowed in Phase 1 in light of Phase 2 GEM accounting directly for some of the Phase 1 innovative off-cycle strategies.

The NPRM proposes requiring A to B testing on a chassis dynamometer to demonstrate the effectiveness of off-cycle technologies. CARB staff suggests caution in using A to B testing on a chassis dynamometer or by using portable emissions measurement systems (PEMS) to quantify sub percentage point efficiency gains. Care must be taken when the expected change is on the same order of magnitude as the test-to-test repeatability of the test method used.

³⁶ (CARB, 2015c) California Air Resources Board, "Draft Technology Assessment: Engine/Powerplant and Drivetrain Optimization and Vehicle Efficiency," June 2015, <http://www.arb.ca.gov/msprog/tech/techreport/epdo_ve_tech_report.pdf>.

Support Comment/Request Clarification

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40596

Comment – Off-cycle credits and adjustments

CARB staff supports the requirements in 40 CFR 1036.610 (c), (e), and (f) that sufficient technological descriptions and data be required to allow adjustment of emission results for off-cycle credits, as well as the demonstration of the durability of the off-cycle technology. This section allows the use of the approved adjustments to be retained through the 2020 MY but that new approval will be required for MY 2021. CARB staff recommends clarification of whether approval for MY 2021 and beyond must be renewed annually or whether that approval will continue for similar off-cycle approaches as had been previously allowed under Phase 1 of the GHG regulations. CARB staff believes the latter approach would be appropriate.

Oppose/Comment on Topic Where NPRM Requests Comment

Affected document(s): Phase 2 Proposed Rule, RIA

Affected pages: 40156-40157, 40206, 40251-40252, 40329, 40342, 40388, 40564; RIA 2-113

Comment – Use of banked Phase 1 credits in Phase 2 program / Credit adjustment factors

The NPRM indicates that “positive market reception to Phase 1 technologies could lead to manufacturers accumulating credit surpluses that could be quite large at the beginning of the Phase 2 program” (pages 40157 and 40251 of the NPRM). The NPRM does not attempt to quantify the level of projected banked credits that could be available at the end of Phase 1. However, U.S. EPA and NHTSA believe, even at this early stage of Phase 1 implementation, that substantial credits will be available that will impact Phase 2 cost, technology readiness, and other key variables. The NPRM provides almost no analysis of, nor accounting for, the potential implications of a large number of banked Phase 1 credits. A large number of Phase 1 credits means that manufacturers have adopted CO₂ reducing technologies much faster than originally

anticipated. However, the NPRM baseline scenarios do not recognize that a large number of banked credits reflect technology advancement beyond Phase 1 standards:

“In each of these proposed baseline configurations, the agencies have not applied any vehicle-level fuel saving or emission reduction technology beyond what is required to meet the Phase 1 standards. NHTSA and EPA reviewed available information regarding the likelihood that manufacturers of vocational vehicles would apply technology beyond what is required for Phase 1, and we concluded that the best approach was to analyze a reference case that maintains technology performance at the Phase 1 level.” (page 2-113 of the RIA).

U.S. EPA and NHTSA propose that these credits be fully carried over into the Phase 2 regulations, without discounting. CARB staff has several concerns with this approach:

- 1) Allowing banked Phase 1 credits in the Phase 2 program reduces the efficacy of the Phase 2 program and delays technology development progress. Generation of large volumes of credits in the Phase 1 program indicates that technology has progressed faster than anticipated during the Phase 1 rulemaking. This faster Phase 1 progress should not justify reduced progress during Phase 2. CARB staff believes sunsetting these credits with the Phase 1 program would still provide manufacturers the opportunity to utilize these credits during Phase 1 (although some manufacturers may not), while maintaining the technological momentum needed to cost-effectively meet more aggressive Phase 2 standards. CARB staff believes that, at most, the life of remaining Phase 1 credits should be limited to no more than three years or with MY 2020, whichever is sooner, such that they would be sunsetted after MY 2020.
- 2) The cost and benefit assessments in the NPRM did not account for the potential of large quantities of banked Phase 1 credits in either of the “baseline” scenarios. If manufacturers have banked large numbers of credits at the beginning of the Phase 2 program, this suggests that the baseline for purposes of cost-benefit and feasibility analysis at the beginning of Phase 2 should reflect Phase 1 plus the technology advancement associated with the large numbers of banked credits. A large number of credits at the end of Phase 1 suggests the trajectory of technology advancement may be more rapid than utilized for baseline scenario modeling, and a more dynamic baseline may be appropriate.

- 3) Not only does the NPRM not discount the Phase 1 credits when carrying them over into Phase 2, it actually adjusts these credits upwards, reflecting an increase in the proposed useful life definition. CARB staff recommends against use of these proposed adjustment factors. U.S. EPA and NHTSA base the calculation of credits on factors such as the emission level compared to the standard and the useful life. Some of the useful life values in Phase 1 were substantially shorter than the actual typical useful life; U.S. EPA and NHTSA have proposed to increase the useful life period for these classes of vehicles. As a consequence of this increase, U.S. EPA and NHTSA propose to apply an adjustment factor relating the old useful life to the new useful life. U.S. EPA and NHTSA assert that CO₂ deterioration is relatively flat and thus, one can presume that the certified CO₂ levels will indeed continue to be met over the longer useful life. While CARB staff agrees that it is appropriate to adjust the useful life upwards to more closely represent the actual useful life, if the credit is multiplied by the ratio of new “actual” useful life to Phase 1 (shorter) useful life, an additional fractional credit will be generated for a benefit that already exists. Because this change in the useful life reflects a recognition of the actual useful life, rather than an increase in the anticipated useful life, CARB staff believes that it is not appropriate to apply a credit adjustment factor to these credits. Allowing the Phase 1 credits to be adjusted upward based on a new extended useful life, as proposed, would take benefits achieved by the Phase 1 program and -- instead of allowing them to benefit the environment -- would allow them to be used to reduce the potential benefits of the proposed Phase 2 program.

CARB supports the use of ABT to enable manufacturers to meet Phase 1 and Phase 2 standards in the most efficient and cost-effective way. However, allowing excess Phase 1 credits into the Phase 2 program could result in slower technology advances than anticipated in the NPRM. CARB encourages U.S. EPA and NHTSA to consider sunseting banked Phase 1 credits in the Phase 2 program to lock in the faster than anticipated technology adoption anticipated from Phase 1. CARB staff specifically suggests that the Phase 1 credits, which currently expire after 5 years, be set to expire in three years or with MY 2020, whichever is sooner. CARB staff further recommends that Phase 1 credits not be adjusted upwards to reflect the change in the useful life to more properly approximate actual useful life. Finally, CARB staff suggests a more dynamic baseline than U.S. EPA and NHTSA are proposing may be appropriate if U.S. EPA and NHTSA are correct in presuming the accumulation of large numbers of Phase 1 credits.

Manufacturers are demonstrating their ability to utilize ABT to cost-effectively meet and exceed existing GHG standards. If U.S. EPA disagrees with CARB's recommendation and maintains its proposal to allow Phase 1 credits in Phase 2, a significant number of Phase 1 credits in the early years of Phase 2 provides greater justification for adopting Alternative 4 over Alternative 3 (as is CARB staff's recommendation discussed elsewhere in this comment package).

Support Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40158-40160, 40163-40164, 40205, 40253, 40331, 40348, 40388-40389, 40435, 40564, 40652

Comment – Termination of the advanced technology multiplier for Rankine engines and class 2b-6 hybrids

The NPRM requests comment on the proposed termination of the advanced technology multiplier. CARB staff agrees that it is appropriate to terminate the advanced technology multiplier for Rankine cycle WHR at this point, since the standards proposed for Phase 2 presume some use of this technology. In addition, hybrids for class 2b through 6 trucks are also reasonably developed at this point, and the vocational vehicle standards were set assuming some penetration of hybrids. Thus, it would be appropriate to terminate the multiplier for these classes of hybrids as well. However, CARB staff believes that the advanced technology multiplier should be continued for class 7/8 hybrids as well as BEVs and FCEVs, as discussed in the following comment.

Comment on Topic Where NPRM Requests Comment

Affected document(s): Phase 2 Proposed Rules; Redlined Document

Affected pages: NPRM 40158, 40253, 40331, 40388-40389, 40563-40564; 40 CFR 1037.615

Comment – Advanced technology credits

Effective with the 2021 MY, U.S. EPA and NHTSA propose eliminating all Advanced Technology Credits (1.5 multiplier) that were included in the Phase 1 GHG regulations to promote early implementation of advanced technologies. The Phase 2 standards

anticipate the use of hybrids and Rankine cycle technology, for which advanced technology credits were previously allowed, as part of the technology path used by manufacturers to meet the proposed Phase 2 standards. U.S. EPA and NHTSA believe that the Phase 2 standards alone should provide sufficient incentive to continue to develop these and other advanced technologies. U.S. EPA and NHTSA welcome comments on the need for advanced technology credits for BEVs and FCEVs in Phase 2, including information on why an incentive in this time frame may be warranted, recognizing that the incentive would result in reduced benefits in terms of CO₂ emissions and fuel use due to the Phase 2 program. CARB staff agrees that there is no further need for advanced technology credits for class 2b through 6 hybrids and Rankine cycle technology, but believes that these credits provide a further impetus to manufacturers to manufacture other technologies such as BEVs and FCEVs, and that the furtherance of this technology development will, over time, offset the temporary reduction in benefits attendant with the use of a multiplier credit. To minimize the potential emissions impact, the incentive could be phased out at a certain manufacturer volume or with a certain MY. Advanced technology credits, as they relate to class 7 and 8 vehicles, are discussed in the following comment.

Oppose (Comment on Topic Where NPRM Requests Comment)

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40158-40160, 40163-40164, 40205, 40219, 40253, 40331, 40348, 40388-40389, 40435, 40564, 40652

Comment – Reinstate advanced technology multiplier for class 7/8 hybrids, BEVs, and FCEVs

The Phase 1 GHG regulation included an advanced technology multiplier to create an incentive for the adoption and early introduction of advanced technologies, namely, Rankine cycle technology, hybrids, BEVs, and FCEVs. According to U.S. EPA and NHTSA, the advanced technology incentives were “intended to promote the commercialization of technologies that have the potential to provide substantially better GHG emissions and fuel consumption if they were able to overcome major near-term market barriers” (page 40389 of the NPRM). CARB staff believes such incentives are needed, especially given the magnitude of California’s GHG emission reduction goals. Accelerated deployment of hybrid and zero-emission trucks and buses is critical for California to meet its air quality, climate and petroleum reduction goals. We anticipate these technologies will be increasingly critical nationally in the years ahead as federal

ozone standards become more stringent and the impacts of climate change continue to manifest themselves.

Thus, CARB staff believes that the advanced technology multiplier should be continued for BEVs and FCEVs in all classes and for full hybrids in class 7 and 8 tractor and regional vocational applications, for the reasons discussed below. In addition to maintaining the advanced technology multiplier, CARB staff encourages U.S. EPA and NHTSA to look for other creative ways in the context of the Phase 2 standards to encourage the development of these critical advanced technologies.

- Proposed standards are not based on these technologies. 40 CFR 1036.615 (k)(7) of the Phase 2 proposal limits the advanced technology multiplier to Phase 1 vehicles, based on the premise that the Phase 2 standards presume the use of Rankine engines, as well as some hybrids. However, hybrid technologies for class 7 and 8 long haul tractor applications, as well as heavy heavy-duty hybrid technologies for regional vocational applications, were not assumed to have any penetration when setting the proposed Phase 2 standards. Hybrid technologies for such applications are still not fully developed and the costs of available hybrid technologies for these applications are still high. In addition, because U.S. EPA and NHTSA anticipate very limited use of BEVs and FCEVs and did not include any anticipated use of these advanced technologies when setting the emission standards proposed in the NPRM, it is appropriate to continue to offer the advanced technology multiplier to accelerate their development and adoption.
- These technologies are potential game-changers and are worth the potential small emission disbenefit. These multipliers would reduce some of the benefits from the rule because manufacturers could use the advanced technology credits in lieu of reducing emissions. For example, a 1 ton emission reduction from using advanced technologies would allow a manufacturer to avoid 1.5 tons in emission reductions they would otherwise need to achieve from traditional vehicles. However, CARB staff expects this reduction in benefits to be insignificant, even under an extremely optimistic penetration scenario for advanced technologies in the Phase 2 timeframe.³⁷ Also, in the long term, the reduction in benefits would be worthwhile due to the anticipated support for development of advanced technologies. A footnote in the NRPM (page 40389 of the NPRM) expresses U.S. EPA and NHTSA's

³⁷ CARB staff estimates if 3 percent of all vehicles covered by the Phase 2 standards received advanced technology credits for model year 2027 and later (for example if 3 percent were battery or fuel cell electric), emissions will be increased by about 0.5 MMT in California as a result of the multiplier. This would reduce projected Phase 2 benefits by about 3% in 2050.

opinion when applying multipliers for advanced technology in the light-duty vehicle fleet for MYs 2017 to 2021: It is “worthwhile to forego modest additional emissions reductions and fuel consumption improvements in the near-term in order to lay the foundation for the potential for much larger ‘game changing’ GHG and oil consumption reductions in the longer term.” U.S. EPA and NHTSA believe it was appropriate to provide multipliers in the light-duty vehicle fleet; BEV development and penetration for the light-duty vehicle fleet is at a much more advanced commercial level than BEVs for the medium- and heavy-duty fleet, with many light-duty vehicle models available in a variety of configurations with ever-increasing consumer acceptance. It is therefore even more appropriate to allow these credits to continue for the medium- and heavy-duty fleet.

- These technologies currently have substantial incremental costs, which advanced technology credits could help bring down. These advanced technologies currently have higher initial costs compared to diesel or gasoline approaches due to low production volumes and higher manufacturer costs. For instance, incremental costs for vehicles using battery electric approaches is estimated at up to about \$90,000 for a medium-duty vehicle (8,501 to 14,000 lbs GVWR), and substantially more for a vehicle in the heavier classes. Maintaining the 1.5 multiplier would help these technologies transition from prototype and small scale production to assembly line production, thereby reducing vehicle costs. By further encouraging early sales of these technologies, the multiplier would help drive down production cost and help zero-emission technologies become more cost-competitive.
- Advanced technology credits would promote research, development and production of advanced technologies and eventual transfer of these technologies to other applications: These multipliers promote the investment by manufacturers in advanced technologies. Further encouraging development and deployment of plug-in hybrid and zero-emission truck and bus technology would help accelerate the rate of these technologies transfer to other applications, such as off-road equipment and marine vessels.
- Advanced technology credits would accelerate consumer acceptance: One of the barriers to commercialization of plug-in hybrid and zero-emission trucks and buses is consumer reluctance to purchase unfamiliar technologies. The “energy paradox” identified in the NPRM (page 40435 of the NPRM) – whereby many readily available technologies that appear to offer cost-effective fuel efficiency benefits have not been widely adopted – is particularly difficult to overcome for the most advanced technologies such as hybrids and zero-emission vehicles. As the NPRM notes, there are numerous potential causes for the energy paradox, including behavioral

rigidity among vehicle operators, imperfect information in the new and resale vehicle markets, and inherent distrust of new technologies. California has experienced these consumer acceptance challenges as we begin our transition to zero- and near-zero-emission technologies. These challenges, where the market does not act rationally to enable cost-effective technologies, underscore the need not only for robust federal standards to help bring these technologies to market, but potentially also for additional strategies to overcome initial consumer resistance to the most advanced technologies.

The advanced technology multiplier provides an incentive for manufacturers to continue to develop BEVs and FCEVs in all class 2b through 8 categories, as well as hybrid technologies for the class 7 and 8 long haul tractor and regional vocational applications. CARB staff believes that continuing the advanced technology multiplier is an important part of promoting these technologies that, in the long term, offer a key approach to significant reduction of GHG emissions. In addition to the supply-level incentive that these credits support, CARB staff has and will continue to incentivize these technologies as well at the consumer level (demand incentive) through the use of its voucher programs, incentive funds, and other types of consumer based credits to promote demand. These programs provide funds to partially offset the incremental costs of advanced technology heavy-duty vehicles compared to equivalent conventional vehicles. CARB has planned rulemakings that will promote substantial requirements for zero-emission transit buses as well as promote advanced technologies for last mile delivery applications and airport shuttles. These planned rulemakings are part of CARB's Sustainable Freight Transport Initiative.

By continuing to allow advanced technology credits for these technologies in the Phase 2 rule, the synergy between the Phase 2 rule and California's incentive and regulatory programs for heavy-duty technologies could push further acceleration of advanced technologies development. To minimize the potential emissions impact, the incentive could be phased out at a certain manufacturer volume such as two percent of vehicles produced in that class or application. We encourage U.S. EPA and NHTSA to maintain the 1.5 multiplier for these critical technologies.

The status of hybrid, battery electric, and fuel cell electric technologies is presented through technology assessment reports, which will be posted at <http://www.arb.ca.gov/msprog/tech/report.htm> when available. These technology assessments support our belief that these technologies are on the cusp of major

potential deployment, which the continued use of the advanced technology multiplier will support.

Oppose/Requested Change Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40598-40602

Comment – Retirement of emission reduction credits

CARB staff recommends U.S. EPA and NHTSA consider the inclusion of a mechanism within the proposed Phase 2 rulemaking for manufacturers to quantify and then voluntarily forego/retire emission reduction credits (particularly for hybrid heavy-duty engines) in a way that is simple, real, transparent, and enforceable. CARB staff is currently developing innovative technology regulatory requirements that could allow hybrid engine, vehicle and/or driveline manufacturers to meet more flexible CARB OBD and other certification requirements to facilitate market launch of key hybrid truck and bus technologies. The innovative technology regulations could also provide more limited certification flexibility for other innovative engine technologies, such as WHR, that have the ability to achieve even greater CO₂ emission reductions. CARB staff anticipates that the innovative technology regulations could require manufacturers opting to receive this flexibility to demonstrate that the applicable hybrid or other innovative technology be surplus to all applicable rules, regulations, or other requirements. Further detailed discussion on these issues follows.

CARB staff is exploring how a potential innovative technology surplus emission reduction compliance demonstration might be conducted in a transparent and efficient way. One potential approach might be to allow manufacturers to generate emission reduction credits from the hybrid or other innovative technology as part of their federal Phase 2 compliance demonstration, and then require the manufacturer to forego/retire these credits as part of their possible Phase 2 ABT reporting. This report would then be shared with CARB as part of the demonstration that the hybrid technology receiving certification flexibility via the innovative technology regulation is surplus to any Phase 2 requirement. The accounting involved with generation, quantification, and retirement of the applicable emission reduction credits would be critical for CARB to determine that the hybrid engines opting to participate in the innovative technology regulation are surplus to Phase 2. Such a mechanism could mirror the approach taken in the NPRM,

40 CFR 1039.710(h), which allows for quantification and retirement of emission reduction credits generated by off-road engines. We believe credit for hybrid engines not participating in the Innovative Technology Regulation should continue to be allowed.

Another potential approach might be to allow manufacturers to voluntarily designate their credits to a third party, such as CARB (or other public agencies). Such an approach would provide CARB staff with assurance that a banked credit is permanently retired.

Without a reporting mechanism to ensure a technology is (and remains) surplus to the proposed Phase 2 requirements in each compliance MY, a potential Innovative Technology Regulation may need to require manufacturers to supplement any adopted federal Phase 2 compliance demonstrations with a California-specific Phase 2 compliance demonstration (with and without the hybrid or other technology, weighted as appropriate by its anticipated California sales volume). Even in such circumstances, however, it may be challenging for CARB staff to track whether a manufacturer utilizes the “surplus” reduction associated with the hybrid or other technology in future year federal compliance demonstrations. A formal mechanism for manufacturers to demonstrate compliance with any adopted federal Phase 2 standard, generate the appropriate emission reduction credits associated with a specific technology, and then permanently forego/retire those credits could help align a potential CARB Innovative Technology Regulation with any adopted federal Phase 2 program, and provide a simple, real, transparent and enforceable mechanism to encourage key technologies in California that go beyond proposed Phase 2 standards. CARB staff looks forward to discussing such a potential approach with U.S. EPA and NHTSA over the coming months as CARB, U.S. EPA and NHTSA consider the adoption of these potential rulemakings.

Hybrid Vehicle Provisions

Comment on Topic Where NPRM Requests Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40190

Comment – Powertrain testing

The NPRM requests comment on “if the generic powertrains should be modified according to specific aspects of the actual powertrain. For example using the engine’s rated power to scale the generic engine’s torque curve.” For hybrid technologies, CARB staff recommends that U.S. EPA and NHTSA consider the effect of the hybrid system, e.g., the work performed by the electric motor, on the generic engine’s torque curve. Because the electric motor is sharing some of the vehicle load requirements, the engine torque map will be altered from its designed targets for similar total power requirement, at least for some operating regimes. If this is not properly accounted for by the powertrain testing procedures, inaccurate fuel economy and emissions test data may likely result.

Comment on Topic Where NPRM Requests Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40296-40298

Comment – Hybrid powertrain test/potential hybrid NO_x increases

The NPRM is proposing to allow a single powertrain test for hybrid vehicles. Instead of A to B testing as required for hybrids in Phase 1, manufacturers would be required to conduct powertrain testing solely on the hybrid system and the test results would be used as inputs for GEM for simulation. CARB staff has significant concerns on the possible NO_x increases of improperly designed heavy-duty hybrid systems, especially in light of U.S. EPA and NHTSA's current proposed provisions allowing the use of downsized engines and non-road engines in on-road heavy-duty hybrid vehicles.

The NPRM requests comment on CARB's letter recommending that U.S. EPA consider including supplemental NO_x testing of hybrids. The published version of the Phase 2 proposal does not contain the supplemental check for NO_x emissions as recommended in the aforementioned CARB letter. Literature data point to possible increases in NO_x

emissions from heavy-duty hybrid vehicles if the hybrid system wasn't properly designed and integrated and/or if the hybrid vehicles were placed in vocations with mismatched duty cycles. As an example, a recent NREL study of hybrid trucks (funded by CARB) shows the average NOx emissions level from a hybrid class 5 parcel delivery step van was 111 percent higher than the NOx emissions from a similar conventional step van when tested on a chassis dynamometer.³⁸ CARB staff continues to believe that this is an important issue for heavy-duty hybrid vehicles and should not be ignored, and continues to support requiring supplemental NOx testing of hybrids.

Although the Phase 2 proposal requires hybrid powertrain testing to record NOx emissions from the hybrid system, there are no provisions for addressing situations where the results show elevated NOx emissions levels. Since no penalties are specified for such a situation, manufacturers may have incentive to exploit a CO₂/NOx trade-off and optimize the hybrid system for fuel economy at the detriment of NOx emissions.

At a minimum, if the recommended supplemental check for NOx emissions is not required for every hybrid, CARB staff recommends that U.S. EPA and NHTSA specify in the Phase 2 standards the consequence for elevated NOx detected during the required hybrid powertrain testing. Possible consequences could include not allowing hybrid systems with elevated NOx to be certified under Phase 2 and/or requiring follow-up supplemental A to B testing if powertrain testing indicates elevated NOx emissions. CARB staff would be happy to work with U.S. EPA to develop the appropriate NOx emissions thresholds for hybrid powertrain testing to identify elevated NOx emissions.

If U.S. EPA and NHTSA ultimately decline to include the recommended supplemental check for NOx emissions (as described above) in the final Phase 2 rulemaking, CARB staff recommends an alternative approach. As an option, U.S. EPA and NHTSA could offer advanced technology credits to encourage manufacturers to perform the supplemental check for NOx emissions. Such credits could be offered to manufacturers who submit data showing hybrid NOx levels the same or lower than a conventional vehicle using supplemental A to B testing. CARB staff believes that these extra credits would provide incentives for hybrid manufacturers to produce hybrids without elevated NOx emissions.

³⁸ (NREL, 2015b) National Renewable Energy Laboratory, "Data Collection, Testing, and Analysis of Hybrid Electric Trucks and Buses Operating in California Fleets - Final Report," page 35, June 2015, <<http://www.nrel.gov/docs/fy15osti/62009.pdf>>.

Comment on Topic Where NPRM Requests Comment**Affected document(s): Phase 2 Proposed Rules****Affected pages: 40325-40326****Comment – Useful life and in-use standards for hybrids**

The NPRM “requests comment on the possibility of mismatched engine and vehicle useful-life values and on any possible implications this may have for manufacturers’ ability to design, certify, produce and sell their engines and vehicles.” (page 40326 of the NPRM). The NPRM notes that “This could lead to a situation where the engine and the vehicle are subject to emission standards over different useful-life periods.”

However, the NPRM suggests that “While such a mismatch in useful life values could be confusing, we don’t believe it poses any particular policy problem that we need to address.” CARB staff believes that the mismatching in engine and vehicle classes is a significant issue that needs to be fully addressed. All heavy-duty engines that are certified for sale have to comply with warranty requirements, which apply to the proper functioning and performance of emission-related components over the warranty period. The useful life requirements for heavy-duty vehicles of different classes are shown in the table below.

Table 15: The Useful Life Requirements for Different Heavy-Duty Vehicle Classes

Heavy-Duty Vehicle Class	Useful Life (Years)	Useful Life (Miles)
Light Heavy-Duty	10	110,000
Medium Heavy-Duty	10	185,000
Heavy Heavy-Duty	10	435,000 (or 22,000 hrs)

As can be seen from the table above, the useful period for a lighter vehicle class is much less than the emission warranty period for a heavier vehicle (i.e., 435,000 vs. 110,000 miles). If a light heavy-duty engine is used in a heavy heavy-duty vehicle, as in using a downsized engine in a hybrid vehicle, there is a disconnect between the two different sets of useful life requirements, a difference of 325,000 miles. The purchaser of a heavy heavy-duty vehicle is protected by regulations that provide 435,000 miles of emissions warranty if the vehicle has a heavy heavy-duty engine installed. However, if a light heavy-duty engine was installed in the same vehicle, the manufacturer of that engine is only liable for 110,000 miles of emissions warranty. Since the light heavy-duty engine and its emission-related components were designed to achieve the required

target of 110,000 miles, it is highly uncertain whether it could continue to meet the certified emission standards if it is operated well beyond its useful life. As such, the purchaser of the vehicle would not be protected to the extent provided by the regulations. In addition, since the emissions performance of the light heavy-duty engine are only warranted for up to 110,000 miles, its installation in a heavy heavy-duty vehicle when being operated beyond that mileage is subject to potential emissions increases without recourse for corrective action.

Another significant issue is engine durability. Heavy-duty engines are designed and manufactured for an acceptable period of use, separate from the emissions warranty useful life. A heavy-duty engine in an over-the-road tractor application is expected by fleet operators to have an operating life of one million miles. A light or medium heavy-duty engine, if installed in that vocational application, is not expected to be able to last that long and may need to be replaced with a new engine some number of times over the life of the vehicle. This would result in an additional cost that may not be anticipated by the purchaser, and may not have been accounted for in the cost analysis of the NPRM, if the NPRM is assuming a certain level of engine downsizing penetration into the heavy heavy-duty vehicle application.

CARB staff believes that these are significant issues that need to be addressed in the Phase 2 rulemaking. One possible approach that was used by CARB in the Interim Certification Procedures for Heavy-Duty Hybrid Vehicles was the requirement that the hybrid vehicles, with or without engine downsizing, have to comply with the same useful life requirements as for the conventional diesel engine that would have been normally used in the same intended vehicle class.

Oppose/Requested Change Comment

Affected documents(s): Phase 2 Proposed Rule

Affected pages: 40522-40523, 40651, proposed 40 CFR 1037.605

Comment - Use of non-road engines in on-road vehicles

The NPRM requests comment on the “technical and regulatory issues surrounding the use of engines from chassis-certified vehicles in certain heavy-duty vehicles” and “on all aspects of this program to create alternate motor-vehicle emission standards that allow certified non-road engines to be used in the identified types of heavy-duty highway vehicles.” CARB generally supports U.S. EPA and NHTSA’s desire to facilitate the

certification of innovative technologies that reduce GHG emissions, recognizes why U.S. EPA and NHTSA are considering allowing non-road engine use in hybrids, and lauds U.S. EPA and NHTSA's seeking to encourage development of hybrid technology. In fact, CARB staff is considering provisions in its proposed Innovative Technology Regulation that would similarly allow limited use of non-road engines in on-road heavy-duty hybrids, but only in well-defined, limited situations (more detail on the Innovative Technology Regulation is at <http://www.arb.ca.gov/msprog/itr/itr.htm>).³⁹ As discussed further below, CARB staff believes that certain safeguards must be incorporated in 40 CFR 1037.605 to ensure that the provisions for innovation do not inadvertently allow abuse and unintended emission increases.

From a technical perspective, the proposal to allow the use of downsized engines, including non-road engines, in on-road hybrid vehicles is justifiable. The combustion engine that is sized for use in a specific heavy-duty vehicle class is, in some cases, oversized, when installed in a hybrid vehicle in the same vehicle class. This is due to the sharing of the vehicle power load requirements by the electric motor in a hybrid system. The result is the combustion engine is occasionally being forced to operate in non-optimal regions of its torque map, which could lead to reduced engine efficiency and increased criteria pollutant emissions, as we have observed in a recent CARB-funded study conducted by NREL (available on our website at http://www.arb.ca.gov/msprog/aqip/hybrid_test.htm). We also agree that, if properly structured, using non-road downsized engines has the potential to reduce both fuel consumption and emissions in hybrid vehicles.

Using non-road engines in a hybrid vehicle makes the most sense in series hybrid configurations where the primary purpose of the combustion engine is to provide power to charge the batteries that are used to propel the vehicle. The combustion engine in a series hybrid configuration can then be operated in a narrow region where it is most efficient and where its emissions can be more effectively controlled. CARB staff recommends against allowing the use of non-road engines in parallel hybrid applications due to the larger range of engine operating parameters that must be controlled in order to minimize criteria pollutant emissions.

³⁹ CARB held its first public workshop on the Proposed Regulation to Provide Certification and Aftermarket Conversion Flexibility for Innovative Medium- and Heavy-Duty Engine and Vehicle Emission Reduction Technologies (Innovative Technology Regulation) in March 2015, and is conducting on-going public work group meetings with interested stakeholders to craft this proposed regulation.

CARB staff recommends that U.S. EPA and NHTSA be cognizant of the fact that non-road engines are generally higher emitting than on-road engines, are certified to higher emission standards with less stringent useful life and durability requirements, and often, unlike on-road engines, are certified without a DPF. For example, the NO_x and PM emission standards (40 CFR part 1039) for compression ignition non-road engines for 56 kW (75 hp) to 560 kW (750 hp) are 0.40 grams per kilowatt-hour (g/kW-hr) (~0.3 grams per brake horsepower-hour (g/bhp-hr)) and 0.02 g/kW-hr (~0.015 g/bhp-hr), respectively. In comparison, the current NO_x and PM emissions standards for on-road heavy-duty diesel engines are 0.20 g/bhp-hr and 0.01 g/bhp-hr, respectively. Contrasting the useful life requirements for on-road heavy-duty engines of 435,000 miles or 22,000 hours with the useful life for ≥37kW non-road engines of 8,000 hours, or 5,000 hours for lower powered non-road engines (Table 4, 40 CFR 1039.101), the large differences in the required useful life for on-road and non-road engines, and the attendant effects on warranty provisions, could give rise to durability issues that we believe are significant. Hence, their use should only be allowed in the narrow circumstances where an appropriate on-road engine is not available to facilitate the use of an advanced technology.

CARB staff is also cognizant of the potential for abuse when flexibility provisions are worded too broadly and hence suggests that some restrictions be added to the provision to prevent inappropriate use of non-road engines in on-road vehicles, such as use of a non-road engine to power an on-road truck that is also connected to a small electric assist battery. CARB staff recommends the Phase 2 regulations include several safeguards to prevent the unintended use of non-road engines in on-road vehicles more broadly than intended.

We recommend the following safeguards:

- First, the scope of applicability should be clarified in 40 CFR 1037.605(a)(1) such that the provisions are restricted to engines in vehicles with hybrid powertrains used exclusively to charge batteries and, by extension, not to vehicles with engines that can also directly propel the drive train as in a parallel hybrid electric vehicle. In other words, the provisions should be restricted to series hybrids only.
- Second, the provisions should be limited to vehicles with significant zero-emission range (for example, 35 miles zero-emission range).
- Third, the non-road engine must meet a 0.01 g/bhp-hr PM standard and be equipped with a DPF.

- Fourth, non-road compression ignition engines with maximum engine power less than 56 kW should not be allowed. We realize that such a prohibition has been proposed for incorporation in 40 CFR 86.007-11(g) of the criteria pollutant standard setting part for highway vehicles, but CARB staff recommends that similar language also be explicated in 40 CFR 1037.605 of the GHG standard setting part itself, not just referenced as proposed, to avoid any confusion regarding the provisions applicability. Accordingly, CARB staff recommends that this concern be addressed via the inclusion of a qualifying phrase in the applicability portion of 40 CFR 1037.605, such as "... and the engines have maximum engine power ratings equal to or greater than 56 kW." (see underscored text in paragraph (a) of CARB staff's revised regulatory text on page 118 below).

With these safeguards incorporated, CARB staff would support the proposed Phase 2 provisions allowing use of non-road engines for on-road series hybrids.

Oppose/Requested Change Comment

Affected documents(s): Phase 2 Proposed Rule

Affected pages: 40522-40523, 40651, proposed 40 CFR 1037.605

Comment - OBD flexibility for specialty heavy-duty vehicles

CARB staff understands some manufacturers of hybrid engines and drivelines have had challenges meeting existing certification requirements, particularly for engine, driveline, and vehicle OBD. U.S. EPA and NHTSA's proposal would allow up to 1,000 hybrid engines and vehicles per manufacturer per year to meet significantly reduced OBD requirements, in order to help enable these technologies to come to market sooner. While we agree with the intent of this proposal, we are concerned it would enable hybrid engine, driveline, and vehicle manufacturers to sell a potentially unlimited number of vehicles with almost no diagnostic capabilities over a period of years, as long as each manufacturer's annual volume stays below 1,000. This approach could also provide an incentive for manufacturers to plan for low annual hybrid sales without ever having to invest in developing diagnostics capabilities.

OBD is critical to not only ensure that vehicle after-treatment and other controls are working properly in-use, but also to address potential engine and driveline integration

issues that can result in increased NOx emissions. While CARB staff concurs that integrating a fully functional diagnostic system into a vehicle utilizing an alternate standard engine may be challenging at first, the benefits of beginning the process early are worthwhile. Access to real-time/real-world data can only improve compatibility and accelerate refinements that will result in cleaner vehicles and more reliable diagnostic systems in the near term.

CARB staff encourages U.S. EPA and NHTSA to set a sunset mechanism for the reduced OBD requirements that reflects the number of vehicles or amount of time needed for the hybrid truck market to launch. The NPRM suggests a few potential approaches to identifying an appropriate sunset mechanism.⁴⁰ CARB staff suggests U.S. EPA and NHTSA explore a sunset for the proposed hybrid certification flexibility, potentially based on phasing in full OBD requirements once 5,000 to 10,000 unit volumes per manufacturer have been produced. U.S. EPA and NHTSA could initially require engine manufacturers diagnostics (EMD) systems for manufacturers wishing to sell only a small number of engines annually and increase to full OBD requirements as a manufacturer applies to sell more engines. While such a sunset mechanism may or may not be triggered within the Phase 2 implementation timeframe, it would send an important signal to hybrid technology manufacturers that as the technology matures, they must plan for eventual OBD compliance. Without such a sunset mechanism, the 1,000 annual volume limit for reduced OBD may mean hybrid manufacturers never develop effective OBD systems.

As mentioned previously, California is developing a proposed Innovative Technology Regulation intended to provide hybrid medium- and heavy-duty engines, drivelines and vehicles with more flexible diagnostics and other certification requirements at time of market launch, ramping up to full OBD over time. CARB staff looks forward to continued coordination with U.S. EPA and NHTSA in developing the proposed Innovative Technology Regulation and in aligning it with the proposed federal program to provide heavy-duty hybrids with OBD flexibility where appropriate.

⁴⁰ The “learning cost reduction curve” identified on pages 40439 and 40440 of the NPRM describes the reduction in unit production cost as a function of accumulated production volume. U.S. EPA has estimated that this results in an approximately 20 percent reduction in cost per every doubling in volume or, by proxy, in the third and then fifth year of production following introduction. After the fifth year following introduction, costs would decline much more slowly (at approximately two percent per year for five years then by one percent per year for the five years after that). The NPRM also indicates that a 5,000 to 10,000 unit volume per hybrid driveline manufacturer may represent a solid sales foundation that would indicate a manufacturer could justify OBD development from a resources standpoint.

BEV Provisions

Comment on Topic Where NPRM Requests Comment

Affected document(s): RIA

Affected pages: 3-16 to 3-17

Comment – Modification of the minimum and maximum allowable test vehicle accumulated mileage for BEVs and plug-in hybrid electric vehicles (PHEV)

CARB staff agrees that it would be appropriate to increase the maximum allowable test vehicle accumulated mileage for BEVs and PHEVs. *Note that this proposed modification does not appear to be included in the NPRM or redlined regulatory language, only in the RIA.*

Oppose/Requested Change Comment

Affected document(s): RIA

Affected pages: 2-135 to 2-136, 2-199 to 2-204, 2-243 to 2-444, 11-59 to 11-61

Comment –Feasibility and costs for medium- and heavy-duty BEVs

While a BEV does not require an engine, exhaust system, or emission controls, it does require the addition of other components such as an electric motor, various electronics, and a battery pack. Of these, the battery pack comprises the vast majority of the cost. Because of the battery pack, BEVs currently have a substantial net incremental cost. The incremental cost is the cost of the BEV over and above the cost of a comparable conventionally-fueled vehicle. U.S. EPA and NHTSA present the incremental costs (2012 dollar) of EVs, and projects how it anticipates these costs will change in the foreseeable future.

While U.S. EPA and NHTSA's anticipated cost reduction approach on the part of the balance-of-components seems reasonable, CARB staff believes that significantly greater cost reductions will be realized in the future due to declining battery costs. Over the last several years, battery costs have declined substantially, and ongoing efforts on the part of academia and industry continue to reduce costs through materials changes,

manufacturing improvements, and cost reductions associated with increased volumes, and are projected to continue to do so. CARB staff believes that U.S. EPA and NHTSA's cost projections overestimate the likely costs of these vehicles in the post 2020 timeframe because of the significant reductions in anticipated battery costs.

CARB staff believes that medium- and heavy-duty BEVs have a significant role to play in the near future, especially for vehicles operating in the optimal duty cycle identified for BEVs (defined routes, lots of starts and stops, high idle time, and lower average speeds). A variety of medium- and heavy-duty BEVs are now available for purchase, including shuttle buses, school buses, and transit buses, and demonstration vehicles are in use in drayage, garbage collection, and other applications. While CARB staff agrees that BEVs are not yet suitable for long-haul trucking, more localized urban opportunities for BEVs abound. CARB staff is currently pursuing battery electric and fuel cell electric requirements for buses and last mile delivery trucks, and will continue to pursue the maximum feasible BEV penetration in other applications. For more information, please see CARB's battery and fuel cell electric technology assessment, which will be posted at <http://www.arb.ca.gov/msprog/tech/report.htm> when available.

Oppose/Requested Change Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40303-40304

Comment – Electric truck deployment projections

CARB disagrees with US EPA and NHTSA's comment that electric trucks will not be widely commercially available in the timeframe of the proposed rule, particularly with respect to urban and miscellaneous vocational vehicles. U.S. EPA and NHTSA cite cost as one of the key factors in this determination. While CARB staff agrees that higher up-front capital costs will be a significant deterrent to zero emission truck and bus deployment in the coming decade, California is taking steps to address this challenge.

California must meet several air quality, climate, and petroleum reduction targets in the 2030 timeframe that will require a broad transformation of our light-, medium- and heavy-duty fleets to utilize zero- and near-zero-emission technologies. In recognition that this transformation will not come simply or cheaply, California is investing hundreds

of millions of dollars annually to develop and deploy zero-emission vehicle technologies. Plug-in hybrid and zero-emission passenger car sales in our State have increased dramatically in the past five years, from a few hundred in 2010 to over 200,000 sold as of mid-2015. California Governor Jerry Brown's Executive Order B-16-2012 sets a target of deploying 1.5 million zero-emission vehicles by 2025, including zero-emission trucks and buses, and California's Zero-Emission Vehicle Action Plan identifies implementation strategies and milestones for achieving this goal.

While the heavy-duty sector will be much more challenging than the light-duty sector, we are implementing key strategies needed to shift trucks and buses to utilize hybrid and zero-emission technology where practical. California's Sustainable Freight Transport Initiative: Pathways to Zero- and Near-Zero Emissions Discussion Document recognizes that in order to meet our public health mandates, climate goals, and economic needs, the transition to a less-polluting, more efficient, modern freight transport system is a preeminent policy objective for the State of California – and will continue to be so for several decades to come. It will require us to make steady and continual progress in moving both domestic and international cargo in California more efficiently, with zero emissions everywhere feasible, and near-zero emissions with renewable fuels.

California Senate Bill 1204 (Lara, Chapter 524, Statutes of 2014) establishes the California Clean Truck, Bus and Off-Road Vehicles and Equipment Technology Program to fund development, demonstration, pre-commercial pilot, and early commercial deployment of zero- and near-zero-emission technologies. In June 2015, CARB approved a \$350 million funding plan for fiscal year 2015-16 utilizing GHG Reduction Fund and AQIP monies. The GHG Reduction Fund provides an ongoing source of funding which California can invest in zero- and near-zero-emission transportation solutions. Previous year's investments have resulted in over 2,000 hybrid and zero-emission heavy-duty vehicles now deployed in California, mostly in delivery truck vocations.

We believe the NPRM should recognize California's critical need for, and commitment to, accelerated deployment of zero-emission heavy-duty vehicle technologies. We anticipate California will address capital cost and other barriers to zero-emission truck and bus deployment through a robust strategy portfolio of targeted incentives, complementary regulations, and other approaches. CARB staff believes that zero-emission trucks and buses will likely begin to be widely commercially available in California in the Phase 2 timeframe, particular in urban and local delivery vocations.

Given that California represents about ten percent of the nation's truck and bus market, this is not an insignificant development, even in the context of a federal Phase 2 program.

Other States and localities are also recognizing the need for zero-emission truck and bus technologies to meet more stringent eight-hour ozone standards and local air quality and health goals. New York State and the City of Chicago, for example, have followed California's lead by implementing similar funding programs to accelerate deployment of zero-emission truck and bus technologies. While we expect California will lead the nation in making zero-emission truck and bus technologies a reality, we also anticipate, much like other states have "opted in" to California's light-duty passenger car zero-emission vehicle program, our heavy-duty zero-emission vehicle program and strategies may also be a model for other states. We recommend that U.S. EPA and NHTSA recognize California's needs for, and commitment to, deployment of zero-emission heavy-duty vehicles in the 2025 to 2030 timeframe, with the expectation for significant zero-emission truck and bus deployment in the urban vocational and miscellaneous vehicle vocations.

Support/Comment on Topic Where NPRM Requests Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40159, 40331, 40389, 40616, 40750-40751

Comment – Upstream emissions/deemed zero language for BEVs

Like the Phase 1 standards, Phase 2 standards are based on tailpipe emissions. Because the expected penetration of BEVs is low, U.S. EPA and NHTSA propose to continue to treat BEVs as if they have zero emissions of CO₂, methane, and nitrous oxide (N₂O) without accounting for upstream emissions from charging. The NPRM specifically requests comment on this continued use of deemed zero language for EVs. While there are clearly emissions associated with power production to charge medium- and heavy-duty EVs, emissions associated with producing a kW of power are declining, and medium- and heavy-duty BEVs currently comprise a small portion of the fleet that the emissions associated with charging the vehicles is comparatively insignificant.

The 2017 to 2025 MY light-duty vehicle GHG rule includes a cap whereby upstream emissions would be counted after a certain volume of sales is reached. U.S. EPA and

NHTSA believe such a cap is not needed for medium- and heavy-duty BEVs due to their anticipated low likelihood of significant production volumes in the Phase 2 timeframe. CARB staff agrees such a cap need not be included in this regulation at this time. CARB staff believes a different regulatory structure for the likely small number of anticipated vehicles would put an extra burden on manufacturers and would not result in significant emission reductions.

FCEV Characterization

Oppose/Requested Change Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40253, proposed 40 CFR 1037.621

Comment – Limited use of fuel cell electric technologies in 2021 and beyond

CARB staff believes the NPRM is overly pessimistic regarding the future of heavy-duty FCEVs. CARB believes that zero-emission technologies will be able to demonstrate greater applications, range, durability, and reliability by 2021. CARB staff is currently developing a fuel cell electric technology assessment, which will be posted at <http://www.arb.ca.gov/msprog/tech/report.htm> when available. In developing the fuel cell electric technology assessment, CARB staff has concluded heavy-duty FCEVs have the potential to become a prime candidate for zero-emission transportation, especially for vehicle types that travel long distances. It is reasonable to expect that fuel cell electric technology will likely be transferred to other heavy-duty applications in the near future, which will help foster broader commercialization.

Fuel cell electric buses are already in the early commercialization stage today and have demonstrated robust service records. As detailed in Attachment 4 – Active and Planned Fuel Cell Electric Vehicles Demonstrations,⁴¹ various demonstrations of heavy-duty FCEVs have been funded through federal, state, and local programs. Fuel cell electric transit buses have been demonstrated worldwide over the last two decades, with promising results.⁴² Currently, there are 24 (of which 18 are in California) demonstrated fuel cell electric buses and 22 (of which 8 are in California) planned demonstrations fuel

⁴¹ See Attachment 4 for Active and Planned Fuel Cell Electric Vehicles Demonstrations.

⁴² (NREL, 2015c) Eudy, Leslie, and Matthew Post, “Zero Emission Bay Area (ZEBA) Fuel Cell Bus Demonstration Results: Fourth Report,” National Renewable Energy Laboratory, July 2015, <<http://www.nrel.gov/docs/fy15osti/63719.pdf>>.

cell electric buses in the U.S.⁴³ In addition, there are 45 (of which 22 are in California) fuel cell electric trucks that are currently being demonstrated or are planned to be demonstrated in the U.S.⁴⁴ To encourage further development of fuel cell electric technology in other heavy-duty on-road applications, a number of agencies including the U.S. Department of Energy, California Energy Commission, and South Coast Air Quality Management District have recently and are currently funding heavy-duty fuel cell electric demonstration projects, including demonstrations involving electric drayage trucks. CARB will make available approximately \$25 million for near-zero- and zero-emission drayage trucks and at least \$25 million for zero-emission trucks and buses in 2015. By 2021, CARB staff expects heavy-duty FCEVs will be in commercial or pre-commercial phases, depending on the vocation. However, as new technology is often more expensive, it is important to provide adequate incentives to the market at the early stage. In California, we have and will be utilizing a variety of financial incentives along with regulatory programs. We urge U.S. EPA and NHTSA to consider a similar strategy to increase the volume of heavy-duty FCEVs, reduce their cost, and establish corridor fueling networks. CARB is interested in working collaboratively with U.S. EPA and NHTSA on this effort.

Oppose/Requested Change Comment

Affected document(s): RIA

Affected pages: 2-39

Comment –Excess weight associated with fuel cell

CARB staff has significant concerns regarding the following assertion:

Hybrid powertrains, fuel cells and auxiliary power would not only present complex packaging and weight issues, they would further increase the need for reductions in the weight of the body, chassis, and powertrain components in order to maintain vehicle functionality.

CARB staff disagrees with the statement made in the RIA that fuel cells present complex packaging and weight issues. With regard to packaging, the stack power density for a heavy-duty proton exchange membrane fuel cell (PEMFC) system (commonly used in on-road vehicles) ranges between 1,500 and 1,800 watts per liter

⁴³ See Attachment 4 for Active and Planned Fuel Cell Electric Vehicles Demonstrations.

⁴⁴ Id

(W/L) and the system power density is 200 to 300 W/L. The system specific power for heavy-duty PEMFCs is similar to conventional engines. For instance, a Cummins ISB 6.7 diesel engine that is used in hybrid transit buses is rated at 209 kW and with a system weight of 616 kg has a system specific power of 339 watts per kilogram (W/kg), falling in the range of a heavy-duty fuel cell system. The stack and system specific power and density are equivalent to commercial conventional engine products. Therefore, the volume and weight of a fuel cell system does not pose a “complex packaging and weight issue” for heavy-duty vehicles, nor does it compromise the vehicle’s functionality.

The additional weight of FCEVs is not actually associated with the fuel cell engine. It is the electrified components that are used in hybrid electric vehicles, BEVs, and FCEVs that have some additional weight. Also, similar to compressed natural gas (CNG) vehicles, on-board hydrogen storage tanks weigh more than diesel tanks. CARB staff anticipates that weight reductions in both electrical components and hydrogen storage tanks are feasible within the Phase 2 timeframe and that heavy-duty FCEVs should not be discounted merely on a near-term assessment of weight.

Comments on Proposed Compliance, Certification, and Enforcement Provisions**OBD****Support Comment**

Affected document(s): Phase 2 Proposed Rules; RIA

Affected pages: NPRM 40526, 40552-40554, 40580, 40710-40712; RIA 3-2; proposed 40 CFR 86.004-28, 40 CFR 1033.535, 40 CFR 1065.680

Comment – Adjustment factors for infrequent regeneration events

CARB staff supports the proposed use of adjustment factors for correction of CO₂ emission results and fuel consumption from infrequent regeneration events from heavy-duty engines equipped with exhaust aftertreatment. However, CARB staff has concerns regarding the continued use of the methodology for calculation of infrequent regeneration adjustment factors (IRAFs) as specified in 40 CFR 1065.680.

The primary concern stems from the application of the adjustment factors to discount both FTP and heavy-duty SET emissions. Instead, the adjustment factors should be applied in such a way as to apply the discounted FTP regeneration emissions to the SET regeneration emissions. In addition, staff believes that adjustment factors should be developed separately for each engine family. Due to the concerns with manufacturers inappropriately calculating adjustment factors, staff does not recommend allowing carry-across of adjustment factors from one engine family to another.

Specifically regarding the application of IRAFs to FTP and SET emissions, staff understands that heavy-duty manufacturers have been calculating adjustment factors based on a U.S. EPA guidance document (REF CISC-06-22 HD-HWY). The concept in this document is to allow an offset in regeneration emissions from city-type driving to highway-type driving. CARB staff believes the example provided in this guidance document is flawed in that it applies discounted adjustment factors for both the FTP and SET cycles. In this example, the regeneration emissions were not applied to the SET. A true offset would seek to balance the emissions between city and highway driving. That is, if the regeneration emissions were offset from the FTP then the balance would be added to the SET; not subtracted, as done in the guidance document. This becomes more evident in the calculation of the new frequency factors, F, in the RIA's example.

The FTP regeneration frequency is decreased from 0.2 to 0.06; however, the SET frequency is also decreased from 0.05 to 0.035. This double discounting in frequency is not reasonable and does not follow our understanding of in-use regeneration frequency. Instead, there should be a composite frequency, F' , that resides between the individual cycle frequencies (i.e., $0.05 < F' < 0.2$).

CARB staff suggests that U.S. EPA and NHTSA develop a representative composite frequency that takes into account the SET and FTP frequencies similar to the example equation below. Using the data provided in U.S. EPA guidance document, an equation to offset emissions with in-use driving averaged at 30 percent city (FTP-like driving) and 70 percent highway (SET-like driving) would be as follows:

$$F' = F_{ftp} * \text{offset} + F_{set} * (1 - \text{offset})$$

$$F' = 0.20 * 0.3 + 0.05 * (1 - 0.3) = 0.095$$

Where offset = percent city driving

The new frequency, F' , would be used for both FTP and SET calculations of upward adjustment factors.

The table below includes the calculation of F' for the full spectrum of percent city driving.

Table 16: Calculation of F' for the Full Spectrum of Percent City Driving

City Driving	F-ftp	F-set	F'
0	0.20	0.05	0.05
10%	0.20	0.05	0.065
20%	0.20	0.05	0.08
30%	0.20	0.05	0.095
40%	0.20	0.05	0.11
50%	0.20	0.05	0.125
60%	0.20	0.05	0.14
70%	0.20	0.05	0.155
80%	0.20	0.05	0.17
90%	0.20	0.05	0.185
100%	0.20	0.05	0.20

Further, CARB staff recommends utilizing existing standardized data stream parameters or developing new ones that characterize regeneration frequency on in-use engines (e.g., average regeneration frequency as a function of integrated fuel consumed, integrated work, positive kinetic energy) to complement analysis and conclusions made at the time of certification. For example, 2013 and newer MY diesel vehicles support in-use regeneration information through scan tool output. Vehicles using the SAE Standard J1939 protocol must support either SPN 5827 – ‘Aftertreatment 1 Average Distance Between Active DPF Regenerations’, or SPN 5454 – ‘Aftertreatment 1 Diesel Particulate Filter Average Time Between Active Regenerations.’ Vehicles using the SAE Standard J1979 protocol must support PID \$8B which includes both ‘average time between regens’ and ‘average distance between regens.’

Using these in-use data, a manufacturer can calculate an in-use regeneration frequency. Also, U.S. EPA and NHTSA can use these data for verification and compliance of the manufacturer’s reported regeneration adjustment factors. The example below shows how the in-use data might be used to confirm reported adjustment factors:

$$F = \frac{\sum_{i=1}^n \left(\frac{V_{reg,i}}{V_{test}} \right)}{\sum_{i=1}^n \left(\frac{V_{reg,i}}{V_{test}} \right) + \sum_{i=1}^n \left(\frac{V_{idle,i}}{V_{test}} \right)}$$

A similar equation can be developed using a time basis:

$$F = \frac{\sum_{i=1}^n \left(\frac{t_{reg,i}}{t_{test}} \right)}{\sum_{i=1}^n \left(\frac{t_{reg,i}}{t_{test}} \right) + \sum_{i=1}^n \left(\frac{t_{idle,i}}{t_{test}} \right)}$$

In closing, CARB staff strongly suggests that U.S. EPA and NHTSA revise the IRAF calculation methodology to accurately account for infrequent regeneration emissions on both FTP and SET test cycles.

Comment on Topic Where NPRM Requests Comment**Affected document(s): Phase 2 Proposed Rules; RIA****Affected pages: NPRM 40511; RIA 13-37, 13-41****Comment – Liquid natural gas (LNG) boil-off warning systems**

The NPRM requests comment on the feasibility and appropriateness of a regulatory requirement that LNG-fueled vehicles include a warning system that would notify a driver of a pending boil-off event as one means of reducing the frequency of such events in an effort to limit methane releases to the atmosphere. U.S. EPA and NHTSA have suggested a warning light that would be illuminated once tank pressure exceeded a threshold in addition to an audible, periodic chime. In addition, the RIA notes that the components used as inputs to the boil-off warning system would be required to be monitored by OBD, and the number of boil-off events tracked and reported. CARB staff agrees that it seems valuable to have both a driver notification (so the operator can take action to prevent or mitigate a boil off) and tracking of boil offs that actually occur to help quantify the occurrences and guide development future requirements. However, CARB staff would like to note that tracking the history of boil-off events and the methods used for boil-off would require new communication messages to be defined in both SAE Standards J1939 and J1979 if the information is to be downloaded via scan tool. Because these data are currently not standardized, CARB staff suggests a simpler near term approach such as requiring installation of a dedicated light that would illuminate if the undesired boil-off to the atmosphere event occurred. This light could be designed to only be cleared by a dealership technician. Additionally, the light could provide the same information as the scan tool messages without implementation of new scan tool messages by blinking at key-on engine-off to indicate the exact number of undesired boil-off events that occurred on the vehicle since the memory was last cleared. As the necessary standardization required to obtain boil-off event information is developed, both driver notification and event tracking via OBD could be implemented.

Note that if boil offs generally only occur when the vehicle is parked, a warning system would have to be active when the operator has shut down the vehicle. This means either the engine control module (or some other module on the vehicle) has to be kept alive during the vehicle shutdown period or some type of hardware (e.g., latching pressure-based, mechanical switches) has to be incorporated to sense the

overpressure condition during the shutdown period. Both of these are feasible and have been done in OBD system implementations. However, it is not clear what the benefit is if the operator is not near the vehicle and is unable to respond.

Oppose/Requested Change Comment

Affected document(s): RIA

Affected pages: 13-41

Comment – Methane leak detection

While CARB staff supports the use of OBD to detect and provide a warning for when methane leaks from the CNG or LNG fuel system occur, staff is not certain if an actual methane leak check is required under the current requirements, or if rationality and functionality of sensors and components is required, or both. If a leak detection monitor is required, staff suggests that the leak size or leak rate be clearly defined. Additionally, it is important to note that simple rationality and functionality of sensors and components, which is what is required by comprehensive component monitoring, do not inherently indicate leaks in the system. A full system check would be required in order to ensure detection of CNG or LNG fuel system leaks. While feasibility of leak detection has not been determined, tank pressure profiles should follow predictable behavior and provide the basis for a monitoring strategy. In reality, the operator might notice a leak in many instances due to odor or a change in fuel level disproportionate to driving before the diagnostic system has adequate time to identify the leak and store a fault code.

Comment on Topic Where NPRM Requests Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40523

Comment – Alternate emission standards for specialty heavy-duty vehicles

The NRPM requests comments on the technical and regulatory issues of heavy-duty vehicles that use an engine from a smaller vehicle that is already covered by chassis-

based certification under 40 CFR part 86, subpart S. For these vehicles, it is proposed that alternate standards would apply to the engine certification-based emission standards and certification requirements while all vehicle-based requirements for evaporative and greenhouse gas emissions would continue to apply as specified in the regulation.

While an engine from a chassis certified vehicle may fulfill the charging demands of a series heavy-duty hybrid, tailpipe emissions, evaporative emissions and OBD performance may be significantly compromised when the engine is used in heavy-duty hybrid applications. In the hybrid application, the engine would likely be commanded to operate at optimal efficiency speed-load points, which could be conditions that do not have optimized emissions control on the chassis cycles (e.g., sustained high load on a gasoline engine might result in enrichment for catalyst over temperature protection; it may also result in inadequate canister purging). Further, the OBD system would be calibrated to yield good OBD performance under duty cycles typically encountered by the chassis certified vehicles, which may be significantly different than the duty cycle experienced in the hybrid. A likely consequence is that diagnostics simply won't experience the conditions necessary to execute (e.g., if the monitor in the chassis certified application is designed to detect malfunctions when the engine is idling and the engine is not idled in the hybrid application, the malfunction won't be detected). A less likely yet plausible concern is that monitors will make non robust decisions (i.e., the diagnostic will indicate a malfunction is present when there isn't one). Another consequence is that the correlation between emission levels and malfunction detection will be upset (e.g., malfunctions may likely be detected at much higher emission levels because the engine operates at higher duty cycles on average). These examples highlight the need to recalibrate the emission control system and OBD system to ensure good performance in the heavy-duty hybrid application. This can be difficult to achieve by the heavy-duty vehicle manufacturer wishing to design a heavy-duty hybrid if the vehicle manufacturer does not have the intimate knowledge of and ability to reprogram the original engine computer with a custom calibration.

Comment on Topic Where NPRM Requests Comment**Affected document(s): Phase 2 Proposed Rules****Affected pages: 40523-40524****Comment – OBD for heavy-duty vehicles**

The NRPM requests comment on the proposal to change U.S. EPA and NHTSA regulation to simply require manufacturers to meet the California OBD requirements. Given that, as U.S. EPA and NHTSA state, manufacturers in almost all cases certify based on the California regulations and procedures today, CARB staff generally supports this proposal. However, because California OBD requirements are in some cases more stringent than federal OBD requirements, it is important to note that some vehicles and engines currently certified through U.S. EPA and NHTSA alone as federal certifications may not be able to comply with California requirements without significant improvements to their OBD systems. If a manufacturer seeks certification of previous federal only system in California, CARB staff will require necessary improvements, which could be a significant increase in workload for the applicant and staff and could consequently increase certification timing for all applicants, depending on the additional volume of certifications. Additionally, staff has some questions regarding those situations in which U.S. EPA and NHTSA would continue to reserve the right to certify vehicles or engines as “Federal Only” certifications. Specifically, if U.S. EPA and NHTSA desire to maintain special situations it must be made clear that the vehicle is not certified to the California OBD regulation by CARB and the OBD compliance parameter identification (PID) from the scan tool (PID \$1C in SAE Standard J1979) would need to report that it is a federal vehicle, even if U.S. EPA and NHTSA used the California requirements as the basis for their certification. Also, it is not clear whether U.S. EPA and NHTSA would select separate engine families for demonstration under 40 CFR 1971.1 (i) that are independent and addition to the families selected by CARB.

Labelling

Support Comment

Affected document: Phase 2 Proposed Rules

Affected pages: NPRM 40282, proposed 40 CFR 1037.135

Comment – Requirements for emission control labels for trailers

CARB staff supports the proposal that emission control system identifiers be included on trailer labels. Having the emission control system identifiers on the emission control label is a simple and effective way of verifying that a vehicle is in a certified configuration, and is the most commonly used method of making a compliance determination during a vehicle inspection. CARB staff does recommend that an additional requirement be included to make labels readily visible to the average person (for example, amend 40 CFR 1037.135(b) to include: “Attached in a location where the label will be readily visible to the average person after the vehicle manufacture is complete.”)

Oppose/Requested Change Comment

Affected document: Phase 2 Proposed Rules

Affected pages: NPRM 40250-40251, 40327, proposed 40 CFR 1037.135

Comment – Requirements for emission control labels for tractors and vocational vehicles

CARB staff has significant concerns regarding the proposed removal of the requirements directing manufacturers to list the emission control system identifiers on the emission control labels for tractors and vocational vehicles certified to the Phase 2 standards. Specifically, CARB staff recommends leaving 40 CFR 1037.135(c)(6) as it currently reads, and not including the additional statement that “Phase 2 tractors and Phase 2 vocational vehicles (other than those certified to standards for emergency vehicles) may omit this information.” Having the emission control system identifiers on the emission control label is a simple and effective way of verifying that a vehicle is in a certified configuration, and is the most commonly used method of making a compliance

determination during a vehicle inspection. Relying solely on an electronic method of identifying vehicles would limit vehicle inspections to areas where a sufficient internet connection could be obtained in order to access an online database, and is therefore not the most practical and efficient way of determining a vehicle's compliance in all situations. For these reasons, CARB staff recommends that emission control identifiers continue to be listed on the emission control labels along with an electronic method of identifying vehicles similar to the label shown in Figure 5 below. If it is not practical to require that all emission control identifiers be listed, then CARB staff recommends at a minimum requiring that all visible components be listed. CARB staff also recommends that an additional requirement be included to make labels readily visible to the average person (for example, amend 40 CFR 1037.135(b) to include: "Attached in a location where the label will be readily visible to the average person after the vehicle manufacture is complete.")

Figure 5: Heavy-Duty Diesel Engine Emissions Control Label

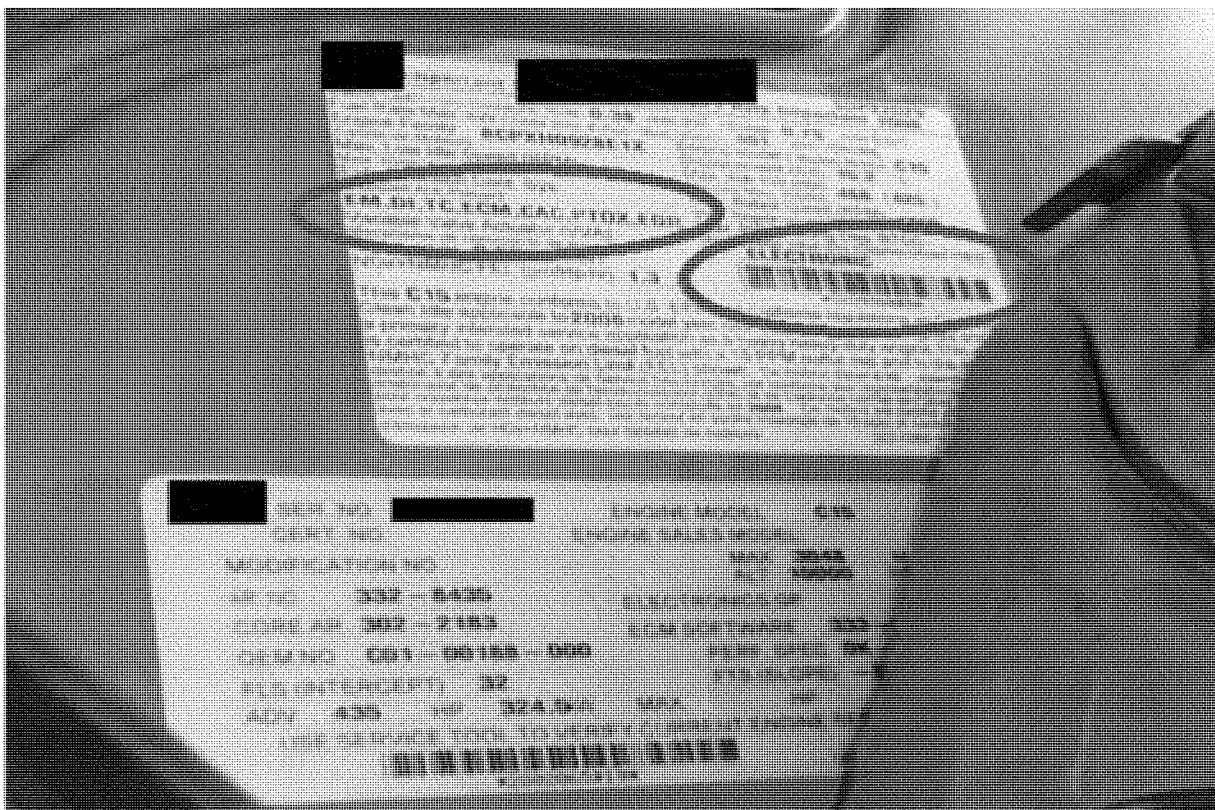


Fig. 1: This is a photograph of a heavy-duty diesel engine Emissions Control Label containing both a list of emission control identifiers, and a barcode that can be used to electronically identify the vehicle.

Oppose/Requested Change Comment

Affected document: Phase 2 Proposed Rules

Affected pages: NPRM 40390

Comment – Consumer label requirements for pickups and vans

In 2011, U.S. EPA and NHTSA signed a final rule on requirements for window labels for new MY 2013 and later light-duty vehicles sold in the U.S. Such window labels provide fuel efficiency and environmental impact information to vehicle buyers, enabling them to make more informed choices and potentially buy more fuel efficient, lower GHG emitting vehicles. On page 57119 of the Phase 1 rule,⁴⁵ U.S. EPA and NHTSA committed to consider requiring similar window labels for heavy-duty pickups and vans (Class 2b and 3 vehicles) as part of the Phase 2 proposal. However, the NPRM does not include such window label requirements.

CARB staff encourages U.S. EPA and NHTSA to develop consumer label requirements for pickup and vans in Phase 2. Having window labels for heavy pickup and vans would give buyers of such vehicles better, more complete information to consider when purchasing new vehicles. It would also increase the likelihood that the more efficient, lower GHG emitting vehicles required by the proposed Phase 2 standards are embraced by consumers.

⁴⁵ Page 57119 of the Phase 1 Rule “As we did not propose a consumer label for heavy-duty pickups and vans in this action and have not appropriately engaged the public in developing such a label, we are not prepared to finalize a consumer-based label in this action. However, we do intend to consider this issue as we begin work on the next phase of regulations, as we recognize that a consumer label can play an important role in reducing fuel consumption and GHG emissions.” (Federal Register / Vol. 76, No. 179, Sept. 15, 2011).

Test Procedures

Comment on Topic Where NPRM Requests Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40178-40179

Comment – Chassis dynamometer test procedure

The NPRM requests comment on whether a chassis dynamometer test procedure should be required in lieu of the proposed vehicle simulation approach. CARB staff supports chassis testing for vehicles that are already emissions certified on chassis dynamometers and provisions for similar vehicles that can also be tested using widely available chassis dynamometer testing resources, as proposed in the NPRM. These are the lighter end of the heavy-duty vehicle range.

The NPRM's proposed chassis dynamometer testing requirements will expand the data set of chassis dynamometer emissions measurements, which will help provide data needed to evaluate vehicle integration success. CARB staff believes chassis dynamometer testing is critical for assessing engine, powertrain, and vehicle integration effects on GHG emission levels. For its own testing needs, CARB staff is committed to developing a robust in-house test program by aggressively working to expand its heavy-duty chassis dynamometer testing capacity for the comparison of chassis data with simulation, PEMS, and engine/powertrain test data.

Comment on Topic Where NPRM Requests Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40179

Comment – Powertrain testing requirement

The NPRM requests comment on whether U.S. EPA and NHTSA should require powertrain testing more broadly. CARB staff supports the proposed use of powertrain testing, and also supports future further exploration of powertrain and powerpack testing for certification use. The demands on the GEM simulation will be reduced as more of the engine/transmission interaction is demonstrated by physical operation in test cells. In this fashion, the detailed engine/transmission interaction behavior will be directly

captured rather than being potentially ignored by simplifying assumptions in the GEM model.

CARB staff anticipates that growth in powertrain testing will act to encourage collaborative information exchange between engine, transmission, and hybrid powertrain development groups. Maximization of the anticipated GHG savings from advanced powertrains cannot be realized without engine, transmission and hybrid powertrain development groups affecting the designs of each other's products. CARB staff sees adoption of a powertrain testing pathway for certification as a possible incentive in this collaborative direction.

Neutral/Provide Additional Information Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40179-40180

Comment – Engine-only testing over the GEM duty cycle approach

CARB staff generally supports the NPRM's proposal for vehicle simulation and engine testing and is interested in the extent to which engine-only testing can help capture the transient behavior that is lost in a steady state fueling map simulation approach. This capture of transient behavior could yield more robust results for vocational applications that are characterized by hard acceleration and by stop-and-go driving patterns.

As has been noted, the simulation burden for correctly capturing transmission behavior is non-trivial even with access to the proprietary control algorithms. CARB staff anticipates that engine/transmission interactions will continue to develop in both sophistication and prevalence as powertrain development groups seek to maximize efficiency and minimize GHG emissions. This increased complexity is likely to make high fidelity transmission modelling increasingly difficult over time. The advantages of engine-only testing to augment the GEM model inputs could be viewed as a partial step toward eventual use of powertrain and powerpack testing inputs in the GEM model.

Comment on Topic Where NPRM Requests Comment**Affected document(s): Phase 2 Proposed Rules****Affected pages: 40180-40181****Comment – Full vehicle simulation approach (advantages and disadvantages)**

The NPRM requests comment on the proposed approach for full vehicle simulation. CARB staff generally supports the proposed full vehicle simulation approach, and is in favor of GEM including additional subsystems to provide manufacturers greater design flexibility and incentivize the development of vehicles that fully realize the GHG benefits of well-integrated systems.

Additionally, the NPRM requests comment on whether the Phase 2 full vehicle simulation proposal, which potentially requires engine manufacturers to disclose proprietary engine performance information to vehicle manufacturers long before production, would enable the “reverse engineering” of engine manufacturers’ intellectual property, and if so, what steps U.S. EPA and NHTSA could take to address this issue. While CARB staff recognizes that this proposed approach will likely require engine manufacturers to disclose more detailed engine design and performance information early in production cycles, certainly earlier than currently occurs, CARB staff believes this will be a positive development that will facilitate better engine, component, and vehicle integration necessary for achieving maximum, cost-effective fuel efficiency improvements and GHG benefits.

Comment on Topic Where NPRM Requests Comment**Affected document(s): Phase 2 Proposed Rules****Affected pages: 40190****Comment – Powertrain testing in GEM (generic powertrain modification, transmission gear ratio scaling)**

The NPRM requests comment on whether the generic powertrains should be modified according to specific aspects of the actual powertrain, for example by using the engine’s rated power to scale the generic engine’s torque curve. CARB staff believes the generic powertrains should be modified with actual powertrain data and support the proposed efforts to include further experimental data into the GEM simulation. The interpolation of powertrain test CO₂ data for advanced powertrains allows the real

behavior of the powertrain control algorithms and actuator responses to more fully manifest in the GEM evaluation while also minimizing testing burden and avoiding the need to divulge detailed proprietary powertrain control algorithms.

CARB staff support gear ratio scaling as it is in line with including all trivially available powertrain parameters in the GEM simulations.

Comment on Topic Where NPRM Requests Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40190-40191, 40251

Comment – Annual production vehicle testing for comparison to GEM requirement, chassis dynamometer testing (cost and efficacy)

The NPRM requests comment on the proposed testing requirement for annual production vehicle testing. CARB staff supports requiring annual production vehicle testing, but wants to encourage sufficient chassis testing across the variety of vehicle types to verify that the GEM model remains robust over time in the face of shifting vehicle and engine technologies. CARB staff also prefers that the range of technologies be represented rather than just those technologies present on the highest volume vehicle models. Restriction to only the highest volume models could blind this GEM evaluation to a large aggregate fraction of vehicle sales that will never individually rise to the popularity level necessary to qualify for chassis testing under the current vehicle selection criteria. CARB staff prefers there be some representation of non-highest-seller vehicles.

The “configuration” language is ambiguous. This GEM evaluation would be best served by spreading the sparse testing across five vehicle configurations that differ from each other as much as possible (transmission type and gearing, engine size, axle ratios, etc.) while selecting from widely used configurations. CARB staff seeks to avoid a situation where the meaning of a “configuration” is interpreted so strictly that all 12 most popular configurations, from which a manufacturer is allowed to select, may be essentially the same configuration with near trivial differences from GEM or actual GHG perspectives.

To address the concerns above, CARB staff recommends amending the regulatory language as described below:

§ 1037.665 In-use tractor testing.

perform in-use testing as described in this section.

(a) The following test requirements apply beginning in MY 2021:

1 or more models that you project to ~~be among~~ **represent the diversity of** your 12 highest-selling vehicle configurations for the given year.

This tractor based GEM evaluation avoids the vehicles most likely to stress the GEM model's assumptions. Particularly avoided are vocational vehicles in heavily transient applications such as urban buses and solid waste collection vehicles, and vehicles with complex engine/transmission interactions such as advanced powertrain hybrids. CARB staff sees widespread deployment of electrified vocational vehicles (including hybrids) as central to meeting our GHG reduction goals thus lending importance to planning for their inclusion in future GEM model evaluations. CARB staff would prefer to see some representation of vocational and other non-tractor heavy-duty vehicle categories where the GEM model assumptions may not hold as well as for classic tractor vehicles.

The NPRM requests comment on the costs and efficacy of the requirement for manufacturers to annually chassis test three sleeper cab tractors and two day cab tractors and submit these data and GEM results. CARB staff feels that this testing requirement for comparison to the GEM model gathered from across the heavy-duty vehicle market is important for maintaining confidence in the certification simulation method as vehicle technology evolves. The limited amount of annual testing per manufacturer appears financially and operationally manageable while also providing an aggregate industry-wide dataset needed for evaluating correlation of actual emissions with GEM simulation results trends.

The financial burden and operational limitation of available facilities are both eased by the relaxation of emissions measurement equipment specifications from those typical of engine emissions certification test cells. This allows any transient heavy-duty chassis dynamometer to be used by temporary placement of a PEMS unit next to it.

CARB staff agrees that for the purposes of this GEM evaluation the reduced instrumentation requirements of Subpart J are an acceptable cost savings and open many more potential chassis testing sites for consideration.

Comment on Topic Where NPRM Requests Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40265

Comment – The use of Class 8 tractors for compliance simulation as well as performance testing

The NPRM requests comment on the use of class 8 tractors when tractor-trailer combinations are used for compliance simulation as well as performance testing. We agree with the expediency of standardizing use of the class 8 tractors for determining trailer compliance even though the tractors pulling some trailer categories include a small portion of class 7 tractors. This approach will simplify compliance, and the differences between the results for a class 8 tractor pulling a trailer and a class 7 tractor pulling that same trailer are relatively minor. We recommend that this assumption be revisited if class 7 tractors grow in popularity or if the class 7 vs. class 8 tractor difference for tested trailers becomes significantly different due to evolving technology.

Comment on Topic Where NPRM Requests Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40278-40279

Comment – A to B testing for trailer aerodynamic performance - the issue of varying performance for devices across the range of short van lengths, full credit for aerodynamic improvement

The NPRM requests comment on approaches to address the issue of varying performance for devices across the range of short van lengths. CARB staff supports U.S. EPA and NHTSA's proposed grouping approach.

Comment on Topic Where NPRM Requests Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40279-40280

Comment – Trailer aerodynamic compliance testing; pros and cons of exclusive use of zero-yaw data, allowing the use of wind-averaged results for compliance, strategy, supporting data

The NPRM requests comment regarding the pros and cons of exclusive use of zero-yaw data from trailer aerodynamic testing. CARB staff believes that there are advantages of using zero-yaw data. The primary advantage is that zero-yaw data is more reproducible than non-zero-yaw (multiple yaw angles) data. If U.S. EPA and NHTSA provide the option of using either zero-yaw or multiple yaw angle data, the same yaw angle must be chosen for both A and B cases to properly attribute aerodynamic benefits.

Comment on Topic Where NPRM Requests Comment

Affected document(s): RIA

Affected pages: 3-16

Comment – Making the constant speed test procedure the reference aerodynamic method

The RIA requests comment whether the constant speed test procedure should be the reference aerodynamic method. CARB staff believes the constant speed test procedure should not be made the reference method until it can be demonstrated to be superior to the coastdown type methods. The constant speed test procedure requires invasive and costly vehicle modifications in preparation for testing. Namely it requires installation of physical torque meters in either multiple wheel hub positions or in a custom driveshaft location. Nevertheless, while CARB staff believes it is pre-mature at this time to deviate from the accepted industry practice of the coastdown method, we also believe the constant speed procedure holds merit as a potential alternative to the coastdown method. CARB staff looks forward to working with U.S. EPA and NHTSA to examine the full potential and applicability of the constant speed procedure.

Comment on Topic Where NPRM Requests Comment

Affected document(s): RIA

Affected pages: 3-79 to 3-80

Comment – Hybrid charge sustaining operation - FTP or “City” Test and HFET or “Highway” Test: modifying the minimum and maximum allowable test vehicle accumulated mileage for both BEVs and PHEVs

The RIA requests comment on modifying the minimum and maximum allowable test vehicle accumulated mileage for both BEVs and PHEVs. CARB staff agrees with SAE’s test validity criterion of a 1 percent limit on net State of Charge compared to fuel energy. CARB staff agrees minimum and maximum test vehicle allowable mileage should have flexibility to account for unique usage and wear accumulation in plug-in and BEV vehicles. CARB staff recommends that deviations from the standard requirements be contingent on the certifying manufacturer submitting an engineering justification and the agency’s subsequent approval.

Oppose/Requested Change Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40519-40520

Comment – Proposed evaporative emissions testing provisions for LNG vehicles

The NPRM requests comment on all aspects of the proposed provisions for LNG vehicles.

CARB staff supports regulatory action encouraging long hold times before boil off emissions are emitted, but suggests clarifying the requirements. The draft Phase 2 regulatory language states, “Liquefied natural gas vehicles must meet the requirements in Section 4.2 of SAE J2343 (incorporated by reference in § 1037.810), which specifies that vehicles meet a five-day hold time after a refueling event before the fuel reaches the point of venting to relieve pressure.”

SAE Standard J2343 states the following regarding LNG venting and tank design: “Vehicle LNG Tanks shall have a design hold time (build pressure without relieving) of 5

days after being filled net full and at the highest point in the design filling temperature/pressure range.” (Section 4.2 of SAE Standard J2343)

The SAE Standard J2343 covers the test initial conditions adequately: 1) fill level and 2) thermal energy in the tank as expressed in either temperature or pressure of the fuel, and the draft Phase 2 regulatory language specifies that the vehicle must remain parked away from direct sun with ambient temperatures between (20 and 30) degree Celsius throughout the measurement procedure.

However, the SAE Standard J2343 does not give detail about how fill level, thermal energy in tank, or venting would be measured. For example, the fuel flow rate threshold or minimum fuel mass emission that defines a venting event needs to be specified.

CARB staff recommends specifying the required measurement techniques for determining hold time.

There is also need for durability requirements for LNG tanks. At present the NPRM proposal is for 5 days for new vehicles only with no restriction on subsequent degradation of vacuum insulated tanks. A minimum durability of the insulation is imperative to controlling boil off emissions over the life of the vehicle. CARB staff recommends the following language be added: “vehicle mounted LNG tank insulation shall continue to meet SAE Standard J2343 hold time standards through the emissions warranty period of the vehicle.”

Neutral/Provide Additional Information Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40287-40288

Comment – Proposed composite test cycle weightings (in percent) for vocational vehicles

The Composite Test Cycle is weighted based on the CARB transient cycle, 55 mph cruise with road grade cycle, and 65 mph cruise with road grade cycle. The idling portion is already included in those three cycles. But in the NPRM’s Table V-2, it appears that idling is additional to the three cycles. And if the percentages in each row

in Table V-2 are added up, they sum to higher than 100 percent. For example, under urban conditions, the table indicates 94 percent CARB transient, 6 percent 55 mph cruise, and 20 percent idle. CARB staff recommends clarification on how these percentages will be used.

GEM

Neutral/Provide Additional Information Comment

Affected document(s): Phase 2 Proposed Rules; RIA

Affected pages: NPRM 40182-40191, 57464; RIA 4-1 to 4-38

Comment – Overall Phase 2 GEM

The GEM was developed by U.S. EPA for demonstrating compliance with U.S. EPA's GHG emissions and NHTSA's fuel consumption vehicle standards, applicable to class 7 and 8 combination tractors, trailers, and class 2b-8 vocational vehicles. In Phase 1 GEM, most of the simulation parameters were predefined and there were only very limited number of user input parameters. The proposed Phase 2 GEM (GEM P2v1.0) was substantially improved to better model real-world impacts of various fuel efficiency technologies. GEM P2 allows more user input simulation parameters including engine-specific fuel maps, transmissions, and drive axle ratios, which will increase accuracy. The model was validated using approximately 130 vehicle variants, using both chassis and powertrain dynamometer tests.

CARB staff commends U.S. EPA for taking significant steps to improve the model.

Oppose/Requested Change Comment

Affected document(s): Phase 2 Proposed Rules; RIA; Executable Version of GEM P2v1.0; and GEM User Manual

Affected pages: NPRM 40182-40191, 57464; RIA 4-1 to 4-38; GEM User Manual 1-48

Comment – Phase 2 GEM improvements

CARB staff has evaluated and run GEM P2v1.0 and has several suggestions and recommends for clarification:

While GEM for Phase 1 included a graphical user interface (GUI), GEM P2v1.0 does not. CARB staff still prefers GUI for data input. We believe that GUI makes it easy for users to select or input data without the need to see behind the scenes information. We understand that GUIs are not simple to make or upgrade. However, we encourage U.S. EPA to develop a GUI for GEM P2 that can integrate the added Phase 2 technology information.

In the GEM user manual, it is not clear on how to input or edit parameters. We recommend adding clarification regarding how to create new input files and how to use the 'Sample Input Files'.

The proposed GEM was generally designed for diesel engines. We recommend that natural gas engines be treated separately in GEM because their specifications are significantly different from the diesel engines. Please see page 148 for detailed comments on natural gas requirements.

In the future, we encourage U.S. EPA to consider linking GEM to the VERIFY database to make analysis of GHG and criteria pollutant data more convenient.

Oppose/Requested Change Comment

Affected document(s): Phase 2 Proposed Rules; RIA; Executable Version of GEM P2v1.0; and GEM User Manual

Affected pages: NPRM 40182-40191, 57464; RIA 4-1 to 4-38; GEM User Manual 1-48

Comment – Phase 2 GEM technologies included

We appreciate U.S. EPA and NHTSA including additional technologies such as low friction axle lubricant in GEM P2's pull-down menus that were not included in GEM for Phase 1. We recommend U.S. EPA and NHTSA also add to GEM P2 potential aerodynamic improvements and electrified accessories for vocational vehicles and solar control for heavy-duty pickups and vans in the pull-down menu as well. We believe that both technologies must be considered in the overall stringency to further improve emissions in the vocational sector.

Please see detailed comments on vocational vehicles, vocational aerodynamics, and BEVs on pages 36, 44, and 84 respectively.

As described further in our VSL comment on page 143, we recommend that U.S. EPA reconsider offering credit for VSLs and remove them from the GEM P2 pull-down menus.

Support Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40326-40327

Comment- Potential for manufacturers to choose a specific vocational duty cycle for GEM simulation

The NPRM requests comment on allowing vocational vehicle manufacturers to request a different duty cycle versus allowing them to select a test cycle without any need for U.S. EPA or NHTSA approval. CARB staff supports U.S. EPA and NHTSA's proposal for assigning vocational vehicle test cycles through the designated formulas, while still allowing manufacturers to petition to use an alternative. CARB staff does not support allowing manufacturers complete freedom in choosing a test cycle. CARB staff believes that this freedom could lead manufacturers to test on cycles that are not applicable to the duty cycle of the vehicle in an effort to meet less stringent emission standards. The proposed mechanism of allowing manufacturers to petition for use of an alternative test method means that manufacturers must show proof that the vehicle they are certifying meets the criteria for the specific test cycle. Although slightly more burdensome for regulators, CARB staff believes the requirement of a petition to test on an alternative cycle will keep manufacturers from trying to circumvent the emission standards and is the best approach to take.

Support Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40192, 40587, 40592-40593, 40751

Comment – Fuel map requirements

U.S. EPA and NHTSA are proposing that engine manufacturers must certify fuel maps as part of their certification to engine standards, except in cases where they certify based on powertrain testing, and that engine manufacturers be required to provide

these fuel maps to vehicle manufacturers beginning with MY 2020 engines, since MY 2020 engines may be used in MY 2021 vehicles. Vehicle manufacturers may not develop their own fuel maps for engines they do not manufacture. For Phase 2, GEM will allow the input of engines-specific fuel maps, which will increase accuracy. CARB staff supports these requirements as stated.

Non-Road Engines and Vehicles

Comment on Topic Where NPRM Requests Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40534, 40682, proposed 40 CFR 1039.110

Comment – Recording reductant use and other diagnostic functions

CARB staff conceptually supports U.S. EPA and NHTSA's proposal requiring non-road compression ignition engine manufacturers to incorporate OBD that monitor selective catalytic reduction (SCR) reductant levels and quality, and alert the equipment operator when those levels and quality are out of specification. Advanced notification of compromised or low levels of reductant will help to ensure proper SCR operation in-use, and should help minimize occurrences of the engine entering a derated mode of operation per existing SCR inducement strategies.

CARB staff understands that this proposal is not meant to replace SCR inducement policies, but rather to complement them with additional detection capability in an uncomplicated manner. While we generally prefer simple and straightforward approaches as well, diagnostics need the proper balance between simplicity and utility. As such, CARB staff recommends that extra rigor be introduced in 40 CFR 1039.110 to enhance monitoring effectiveness and compatibility. CARB's "On-Board Diagnostic System Requirements for 2010 and Subsequent Model-Year Heavy-Duty Engines" in Title 13 of the California Code of Regulations (CCR), Section 1971.1, contain reductant level/quality monitoring provisions that could serve as guidelines for a more robust federal mechanism.

At a minimum, CARB staff recommends that U.S. EPA and NHTSA adopt standardized fault codes (e.g., SAE Standard J1939 or controller area network (CAN) based), monitoring conditions, malfunction criteria, and fault processing protocols to ensure reasonable and reliable diagnostic system monitoring frequency and malfunction detection performance. Precautions such as these will help ensure that issues related

to reductant quality and replenishment are detected and addressed in a timely manner, and will undoubtedly prove useful should matters of in-use compliance and enforcement come into question. For example, there are no timeframes for detection specified in the proposed language; therefore, a manufacturer could theoretically only monitor once per month (or even less frequently) rendering the diagnostic virtually useless. Therefore, we recommend U.S. EPA and NHTSA to clearly define a minimum performance metric such that the monitoring strategy provides detection capability several times per tank fill of reductant, or continuously for the parts of the diagnostic that rely on electrical continuity or out of range type checking. Standardization may also create opportunities for innovative control approaches by third party developers who might otherwise not have access to proprietary diagnostics.

Additionally, CARB staff recommends that U.S. EPA and NHTSA revise the reductant quality monitoring exemption in 40 CFR 1039.110(a) for vehicles that already possess a diagnostic NOx sensor. The problem with the provision is that it requires a NOx sensor to be present with the capability to monitor reductant quality, but does not necessarily require the sensor to monitor reductant quality in any meaningful way. We recommend that a qualifying statement be appended to the language to address this limitation (see underscored text in paragraph (a) of CARB staff's revised regulatory text below).

CARB staff also recommends the same degree of standardization and robustness mentioned above for any emission-related diagnostic strategy employed per the provisions of 40 CFR 1039.110(b). Taking the time to standardize diagnostic practices now will save valuable resources in the future when more comprehensive OBD requirements are adopted for the non-road compression ignition category. For reference, 40 CFR 1039.110(b) contains the following language:

“§1039.110 Recording reductant use and other diagnostic functions.

(a) Engines equipped with SCR systems using a reductant other than the engine's fuel must have a diagnostic system that monitors reductant quality and tank levels and alert operators to the need to refill the reductant tank before it is empty, or to replace the reductant if it does not meet your concentration specifications. Unless we approve other alerts, use a warning lamp or an audible alarm. You do not need to separately monitor reductant quality if you include an exhaust NOx sensor (or other sensor) that allows you to determine inadequate reductant quality and alert operators when the condition that is indicative of inadequate reductant quality is present. However, tank level must be monitored in all cases.

(b) You may equip your engine with other diagnostic features. If you do, they must be designed to allow us to read and interpret the codes. Note that § 1039.205 requires you to provide us any information needed to read, record, and interpret all the information broadcast by an engine's onboard computers and electronic control units.”

Neutral/Provide Additional Information Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40683, proposed 40 CFR 1039.135(d)

Comment – Allowing optional content on the emission control label for non-road compression ignition engines

Although CARB staff recognizes that this particular provision merely allows manufacturers to incorporate features on the label that can be used to identify counterfeit labels (which CARB staff supports in principle), CARB staff recommends that U.S. EPA and NHTSA include a provision requiring the case-by-case approval of all manufacturer specific content on the label or any content not specifically identified in the regulations, prior to issuing a Certificate of Conformity. U.S. EPA and NHTSA should retain the right to reject any content that could have unintended consequences regardless of whether or not that content meets the general criteria for the optional label content. In particular, staff is concerned that too much information on the label could be a source of confusion to the end user or to enforcement inspectors in the field. For example, a manufacturer might want to use the labelling provisions of 40 CFR 1039.135(d)(1) to identify an ABT engine, that was originally certified to a family emission limit (FEL) consistent with Tier 3 emission levels, as being compliant with the more stringent Tier 4 emission levels. While this identification may not be inaccurate, it could create a situation for California's in-use programs in which fleet owners mistakenly purchase these ABT engines believing that they fulfill the owners' requirements for upgrading the "emissions average" of their fleets. Such a situation could negatively impact both the effectiveness of CARB's in-use programs and the fleet owners' costs should penalties be assessed. Other situations could be problematic, such as the inclusion of bar codes or Quick Response® (QR) type matrix codes on the emission control label that would redirect to a manufacturer supported webpage over which U.S. EPA and NHTSA have no control, or which a manufacturer may decide to no longer support at a future date. CARB staff does not have a comparable allowance for optional label content for off-road compression ignition engines, as the CAA prohibits

California from regulating farm and construction equipment under 175 hp; therefore, we must rely on U.S. EPA and NHTSA to protect California's interests in this matter.

Comment on Topic Where NPRM Requests Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40687; proposed 40 CFR 1039.701(h)

Comment – Foregoing emission credits; Expiration of credits

CARB staff fully supports the provisions in 40 CFR 1039.701(h) that allow manufacturers to voluntarily waive their rights to use banked emission credits. CARB staff's only recommendation for amending this proposal is that U.S. EPA and NHTSA should clarify that manufacturers choosing not to generate credits for an engine family certified to a FEL more stringent than the applicable standard, as described in 40 CFR 1039.701(h)(2), are permanently bound by that choice and cannot later decide to claim credits for that engine family retroactively in a subsequent MY.

On a separate but related topic, CARB staff recommends that U.S. EPA and NHTSA adopt provisions to set a reasonable timeframe for the compulsory expiration of Tier 4 non-road compression ignition emission credits, and codify the terms for expiration in 40 CFR 1039.740. California is a participant in the federal ABT program and is therefore dependent on U.S. EPA and NHTSA for action regarding this request. Our concern is the delay in the full implementation of engines in California equipped with advanced exhaust aftertreatment controls for both PM and NOx. More manufacturers than anticipated are certifying off-road compression ignition engine families in California to Tier 4 final standards without simultaneously employing both PM and NOx aftertreatment devices, and this is due in part, we believe, to manufacturers' use of banked emission credits. We recognize that other factors may contribute to this situation as well, but addressing the expiration of emission credits would help California to more quickly achieve its much needed PM and NOx emission reduction goals.

Oppose/Requested Change Comment

Affected documents(s): Phase 2 Proposed Rule

Affected pages: 40522-40523, 40651, proposed 40 CFR 1037.605

Comment - Exemption from on-road engine criteria pollutant standard for engines in vehicles with maximum speed at or below 45 mph

CARB staff recommends that the scope of the provisions be narrowed such that they do not apply universally to all vehicles with maximum speed at or below 45mph. The need to exempt engines solely on the basis of maximum speed is unclear and has not been thoroughly explained or justified in the preamble. Furthermore, the use of an engine to directly propel a vehicle on the highway, even at less than 45mph, would necessitate the use of a highway certified engine per U.S. EPA and NHTSA's own preamble arguments regarding the representativeness of duty-cycle operation. CARB would not be opposed to relief for specific applications in this category should the need for relief be justifiably explained, but as the provision stands now it seems to have more potential to create new business opportunities that rely on the use of less stringent engines than it does to drive innovation to reduce emissions.

Oppose/Requested Change Comment

Affected documents(s): Phase 2 Proposed Rule

Affected pages: 40522-40523, 40651; 40 CFR 1037.605

Comment - Exemption of amphibious and speed-limited vehicles

The proposed classification of amphibious and speed-limited vehicles utilizing alternate emission standards as, "exempt from the requirements for greenhouse gases" would make it extremely difficult, if not impossible, to enforce violations of these provisions should they occur. This would be especially true for individual states, such as California, which would only have the emissions labels and nationwide end-of-year production reports as the sole means of differentiating compliant vs. non-compliant vehicles within their borders. Although U.S. EPA and NHTSA propose to limit these exempted vehicles to no more than 200 federal units per manufacturer per MY, there

are no guarantees that these engines will end up distributed evenly with respect to each of the 50 states. In fact, states with either coastal access or numerous accessible waterways, such as California, will probably receive disproportionately larger numbers of amphibious vehicles than will other states that lack such features. Furthermore, trying to hold manufacturers accountable to any standard is often untenable when vehicles and engines are considered exempt from regulation. CARB staff believes the potential for abusing this provision is significant and recommends that U.S. EPA and NHTSA address the issue by requiring manufacturers using these provisions to be granted an “abridged” form of a Certificate of Conformity prior to the introduction of their engines into commerce. This would greatly facilitate the in-use tracking and identifying of improper applications of the provision. As a template, U.S. EPA and NHTSA might consider adopting an abridged Certificate of Conformity similar to the abridged Executive Order that California grants for off-road compression-ignition engine families certified under the relief provisions in the Transition Program for Equipment Manufacturers in California (13 CCR 2423 (h)).

CARB staff’s suggested revisions to 40 CFR1037.605 based on the comments above are indicated below in strikeout/underline format.

§1037.605 Installing engines certified to alternate standards for specialty vehicles.

(a) General provisions. This section allows vehicle manufacturers to introduce into U.S. commerce certain new motor vehicles if the installed engines are certified to alternate emission standards that are equivalent to standards that apply for non-road engines under 40 CFR part 1039 that have maximum engine power ratings equal to or greater than 56 kW or part 1048. See 40 CFR 86.007-11(g) and 40 CFR 86.008-10(g). The provisions of this section apply for the following types of vehicles:

(1) Vehicles with a hybrid powertrain in which the engine provides energy exclusively for the Rechargeable Energy Storage System.

(2) Amphibious vehicles.

~~(3) Vehicles with maximum speed at or below 45 miles per hour. If your vehicle is speed limited to meet this specification by reducing maximum speed below what is otherwise possible, this speed limitation must be programmed into the engine or vehicle’s electronic control module in a way that is tamper-proof. If your vehicles are not inherently limited to a maximum speed at or below 45 miles per hour, they may qualify under this paragraph (a)(3) only if we approve your design to limit maximum speed as being tamper-proof in advance.~~

(b) Notification and reporting requirements. Send the Designated Compliance Officer written notification describing your plans before using the provisions of this section. In addition, by February 28 of each calendar year (or less often if we tell you), send the Designated Compliance Officer a report with all the following information:

(1) Identify your full corporate name, address, and telephone number.

(2) List the vehicle and engine models for which you used this exemption in the previous year and identify the total number of vehicles.

(c) Production limits. You may produce up to 1,000 hybrid vehicles and up to 200 amphibious vehicles, under this section in a given MY. This includes vehicles produced by affiliated companies. If you exceed this limit, the ~~exemption provision~~ is void for the number of vehicles that exceed the limit for the MY. ~~For the purpose of this paragraph (c), we will include all vehicles labeled or otherwise identified as exempt under this section.~~ You must apply for and be granted an “abridged” Certificate of Conformity per the instructions in §1037.201(c)([to be determined]) to use the provisions of this section.

(d) Vehicle standards. Hybrid vehicles using the provisions of this section remain subject to all other requirements of this part 1037. For example, you must use GEM in conjunction with powertrain testing to demonstrate compliance with emission standards under subpart B of this part. Vehicles qualifying under paragraph (a)(2) or (a)(3) of this section ~~are exempt from the requirements of this part, except as specified in this section; these vehicles~~ must include a label as specified in §1037.135(a) with the information from §1037.135(c)(1) and (2) and the following statement: “THIS [amphibious vehicle or speed-limited vehicle] IS EXEMPT FROM GREENHOUSE GAS STANDARDS CERTIFIED UNDER THE SPECIAL ALLOWANCES OF 40 CFR 1037.605.”

Comments on Other Proposed Amendments

Baseline Scenario

Comment on Topic Where NPRM Requests Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40166, 40489-40492

Comment – Flat vs. dynamic baseline scenario

The NPRM requests comment regarding which alternative baseline scenario is most appropriate (flat baseline scenario vs. dynamic baseline scenario). Historically, for modeling and emission projection purposes, CARB staff assumes manufacturers would not go beyond regulations' requirements except where we have data that shows otherwise. CARB staff does not have data that suggests that manufacturers, in the absence of further, stricter standards, would make vehicles more fuel efficient than required by the Phase 1 standards. As a result, our EMFAC 2014 emissions inventory database does not project fuel economy improvements or CO₂ emission rate reductions beyond what is required by Phase 1, and CARB staff has been using a flat baseline for our Phase 2 emissions analysis. In the absence of certainty regarding how manufacturers would behave if no Phase 2 program were adopted, CARB staff believes the approach taken in the NPRM and RIA to examine both a less dynamic and more dynamic baseline is valid and reasonable.

Gliders

Comment on Topic Where NPRM Requests Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40125, 40215, 40528-40530

Comment – Gliders: Proposed amendment to U.S. EPA and NHTSA vehicle and engine standards

CARB staff supports U.S. EPA's proposal to end Phase 1 provisions in 40 CFR part 1037 that: a) allow used, remanufactured or rebuilt engines certified to pre-Phase 1 emission standards to be installed in glider kits; and b) exempt glider kits and glider vehicles⁴⁶ produced by small businesses from the requirement to obtain a *vehicle* certificate⁴⁷ for GHG emissions compliance. Since the adoption of the federal 2007/2010 emission standards for PM and NOx, glider sales have significantly increased, and the Phase 1 provisions affecting glider kit and glider vehicle production did not inhibit the accelerated growth in the glider market.

U.S. EPA believes, and CARB staff concurs, that the proposed changes in the Phase 2 rulemaking are necessary to curb the nearly 10-fold increase⁴⁸ in the sale of glider vehicles with older engines (used, remanufactured, or rebuilt), and the associated increase in emissions that has occurred since the implementation of the 2007/2010 NOx and PM standards. While criteria pollutant increases due to the sale of glider vehicles with older engines is somewhat constrained in California as a result of CARB's Truck and Bus Regulation, which required the installation of DPFs on heavier trucks (GVWR over 26,000 lbs) starting in 2012, and engine upgrades to at least 2010 NOx and PM emission levels starting in 2015 for lighter trucks (with GVWR under 26,000 lbs), CARB

⁴⁶ "Glider kit" typically refers to a chassis and cab assembly produced by a manufacturer without a new engine, transmission, or rear axle. "Glider vehicle" or "glider" typically refers to the completed assembly of the glider kit with a used, remanufactured, or rebuilt engine, a transmission, and/or rear axle. U.S. EPA considers "glider kits" to be incomplete motor vehicles, and, under the Clean Air Act, has the authority to regulate incomplete motor vehicles, including unmotorized chassis.

⁴⁷ Under Phase 1, U.S. EPA requires glider kits and gliders to obtain a *vehicle* certificate, except those produced by small businesses. The engine installed in the glider kit is not required to certify to the Phase 1 engine standards. Thus, depending on the size of the business producing the glider kit or glider vehicle, some are exempt from the requirement to obtain a Phase 1 vehicle certificate prior to introduction into commerce as a new vehicle.

⁴⁸ (U.S. EPA, 2015) "Frequently Asked Questions about Heavy-Duty Glider Vehicles and Glider Kits."

staff supports U.S. EPA 's proposal to limit the production and sale of glider vehicles with older, higher-emitting engines for the nationwide protection of human health and the environment and to close potential enforcement loopholes.

Glider kits and glider vehicles are currently exempt from NHTSA's Phase 1 fuel consumption standards. Unlike U.S. EPA, NHTSA defines glider kits as motor vehicle equipment, not as motor vehicles, and therefore is only considering the inclusion of completed glider vehicles in its proposed Phase 2 requirements which will be similar in effect to U.S. EPA's proposal, including special provisions for small business manufacturers. NHTSA is seeking comments from the glider industry regarding its intent to include glider vehicles in its Phase 2 requirements. CARB staff supports NHTSA's intent to apply Phase 2 requirements to completed glider vehicles and strongly encourages it to develop provisions that align, to the extent possible, with U.S. EPA's proposed requirements.

Tire-Related Comments

Comment on Topic Where NPRM Requests Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40243, 40517

Comment – Tire testing and the need for a reference machine for calibration of truck tire characterization equipment

The NPRM proposes to carry over tire testing provisions adopted in International Organization for Standardization (ISO) 28580 for the Phase 1 program into Phase 2. CARB staff supports this proposal.

The NPRM also requests comment on the need to develop a reference machine for calibration of truck tire characterization equipment, and on whether tire test facilities are interested in and willing to commit to developing a reference machine. CARB staff supports this effort to consider the need for a reference machine to ensure accurate correlations of coefficient of rolling resistance (Crr) measurements within the tire industry. CARB staff believes this effort is critical to ensuring reliable comparisons between tire models and manufacturers, and is pertinent to providing rolling resistance

data to assist consumers in purchasing replacement tires with Crr levels equivalent to original equipment manufacturer (OEM) tires.

One of the findings in the National Academy of Sciences (NAS) Committee on Technologies and Approaches for Reducing the Fuel Consumption of Medium- and Heavy-Duty Vehicles, Phase Two, interim report was that tire Crr measurements need to be precise, given the relatively modest fuel savings achieved with LRR tires. Further, while the ISO 28580 test procedure has received high grades from the tire industry, there is not yet a robust cross-correlation for machines used in commercial tire testing. Based on this finding, the NAS Committee recommended that NHTSA, supported by U.S. EPA, implement a mechanism for obtaining accurate tire rolling resistance data, including establishing a tire alignment laboratory and mandating the use of that laboratory.⁴⁹

Based on public comment during Phase 1 development and to address the NAS Committee's specific recommendation to establish a tire alignment laboratory, U.S. EPA and NHTSA evaluated test data from U.S. EPA's Phase 1 tire test program conducted at two independent tire test labs, Standards Testing Lab (STL) and Smithers-Rapra (Smithers), and concluded that any lab-to-lab variation between STL and Smithers has little effect on measured rolling resistance values.⁵⁰ As such, U.S. EPA and NHTSA consider STL or Smithers as acceptable for use as the reference test laboratory in correlating results of tire testing performed by vehicle manufacturers intended for use as GEM inputs. The Phase 2 proposal, however, does not go so far as to require vehicle manufacturers to use a reference laboratory, and instead carries over the provisions from Phase 1 that allow vehicle manufacturers to also perform their own testing or obtain test results from the tire manufacturer or another third party.

Given the proposal's lack of a provision mandating the use of a reference laboratory, CARB staff believes it is important that NHTSA and U.S. EPA work with the tire test industry in developing a reference machine.

⁴⁹ (NAS, 2014) The National Academies of Sciences, "Reducing the Fuel Consumption and Greenhouse Gas Emissions of Medium- and Heavy-Duty Vehicles, Phase 2, First Report," Washington, D.C. National Research Council, The National Academies Press, 2014.

⁵⁰ Summary of test results is described in U.S. EPA Heavy-Duty Tire Evaluation Memorandum by L. Joseph Bachman, July 18, 2011.

Oppose/Requested Change Comment**Affected document(s): Phase 2 Proposed Rules****Affected pages: 40518****Comment – Develop rolling resistance performance standard for replacement tires**

The Phase 2 proposal continues the Phase 1 requirement for GEM inputs for steer tire and drive tire rolling resistance. As with the Phase 1 program, the Phase 2 proposal contains no mechanism to ensure that rolling resistance of replacement tires is the same as the OEM tires simulated during GEM vehicle certification, even though vehicle tires will likely be replaced at the discretion of the vehicle owner at multiple points over the actual lifetime mileage of the vehicle. For example, U.S. EPA and NHTSA estimate a tire replacement interval of about 200,000 miles for tractors (page 7-36 of the RIA). For a class 8 tractor, the regulatory useful life in regards to GHG emissions is 10 years/435,000 miles (page 40215 of the NPRM) but this mileage value is considerably less than the actual lifetime mileage for a class 8 truck. Without a mechanism to ensure replacement tires have Crr values equivalent to OEM tires, there is no assurance a vehicle will maintain its allowable GHG vehicle emission levels demonstrated through GEM.

As such, CARB staff strongly supports the NAS Committee recommendation⁵¹ for NHTSA, in coordination with U.S. EPA, to quantify the rolling resistance of new tires, especially those sold as replacements, and to adopt a regulation establishing a LRR performance standard for all new tires designed for tractors and trailers (if additional cost-effective fuel savings can be achieved), and encourages NHTSA to act as expeditiously as possible.

⁵¹ (NAS, 2014) The National Academies of Sciences, “Reducing the Fuel Consumption and Greenhouse Gas Emissions of Medium- and Heavy-Duty Vehicles, Phase 2, First Report,” Washington, D.C. National Research Council, The National Academies Press, 2014.

Oppose/Requested Change Comment**Affected document(s): Phase 2 Proposed Rules****Affected pages: 40517****Comment – Publication of tire Crr levels and development of tire Crr database**

The NPRM states that U.S. EPA and NHTSA are considering publishing Crr levels from GHG and fuel efficiency program compliance data (which is submitted by vehicle manufacturers, not by tire manufacturers), although the data could vary for a given tire model among vehicle manufacturer submissions or lag when tires are redesigned. CARB staff supports this as a first step in providing buyers information on Crr levels for the universe of tires utilized under the Phase 2 program in order to facilitate tire replacements with equivalent Crr levels.

Nonetheless, U.S. EPA and NHTSA cite the data limitations described above as the rationale for not proposing to establish a public database containing heavy-duty vehicle tire LRR information at this time. While CARB staff acknowledges this concern, the NAS Committee recommends,⁵² and CARB staff strongly encourages, that U.S. EPA and NHTSA develop a mechanism to maintain accurate information on LRR levels in a public database (or other web-based medium). Commercial tires are not sidewall labeled with Crr values, or another standardized metric, to assist truck owners in purchasing replacement tires with Crr values equivalent to the OEM tires, or to assist vehicle builders with tire selection based on their fuel savings benefits. The NPRM itself acknowledges the inability of vehicle buyers to obtain reliable information on the fuel savings, reliability, and maintenance costs of technologies that improve fuel efficiency (page 40436 of the NPRM). For the near-term, CARB staff believes that a public database is necessary to provide truck owners and vehicle builders with access to accurate information on tire LRR and fuel savings benefits associated with Crr values.

For the longer-term, CARB staff recommends that NHTSA coordinate with the tire industry to develop standardized sidewall labeling parameters that include Crr values, or

⁵² (NAS, 2014) The National Academies of Sciences, “Reducing the Fuel Consumption and Greenhouse Gas Emissions of Medium- and Heavy-Duty Vehicles, Phase 2, First Report,” Washington, D.C. National Research Council, The National Academies Press, 2014.

other standardized accepted metrics for determining Crr values, and undertake a rulemaking to require such sidewall labeling.

Comment on Topic Where NPRM Requests Comment

Affected document(s): Phase 2 Proposed Rules; RIA

Affected pages: NPRM 40187, 40218, 40261-40262, 40264; RIA 2-28 to 2-29, 2-163 to 2-165

Comment – Tire pressure monitoring system

The NPRM requests comment on whether they should assign a fixed credit in fuel consumption and CO₂ emissions for tire pressure monitoring systems, and if so, what would be an appropriate assigned fixed value. Maintaining properly inflated tires can extend tire life, save fuel, and improve safety, so CARB staff generally supports the use of systems that assist in the maintenance of properly inflated tires. However, CARB staff strongly supports U.S. EPA and NHTSA not providing credit for tire pressure monitoring systems for heavy-duty tractors and trailers. Unlike ATISs, tire pressure monitoring systems only monitor pressure and alert the driver regarding the variance between the recommended target pressure and the actual measured pressure in the tire. Tire pressure monitoring systems require action from the drivers to reinflate the affected tire(s), hence the benefit of such systems is dependent on driver behavior. Because there is no guarantee what action, if any, drivers will take in response to tire pressure monitoring systems, CARB staff recommends no credit for such systems in Phase 2.

In the Tire Pressure Systems – Confidence Report dated August 2013, the North American Council for Freight Efficiency (NACFE) indicated that ATISs are more common than tire pressure monitoring systems by a ratio of about four to one for trailers. The ATIS is designed to monitor and continually adjust the level of pressurized air in tires, automatically keeping tires properly inflated even while the vehicle is in motion. CARB staff concurs with U.S. EPA and NHTSA's proposal to provide credit in GEM for the installation of ATISs on tractors and trailers. This system was included in CARB's evaluation of vehicle efficiency technologies for heavy-duty vehicles that would result in improved fuel consumption and reductions in GHG emissions. For more information on ATIS, please refer to CARB's Draft Technology Assessment: Engine/Powerplant and Drivetrain Optimization and Vehicle Efficiency, June 2015 at: http://www.arb.ca.gov/msprog/tech/techreport/epdo_ve_tech_report.pdf.

Oppose/Requested Change Comment**Affected Document(s): Phase 2 proposed Rules****Affected Pages: 40292-40294****Comment - Emergency vehicle tire provisions**

The Phase 2 proposal for emergency vehicles allows emergency vehicles to continue to use tires meeting only Phase 1-level Crr performance. While CARB staff understands the unique functionality, performance, and reliability criteria applicable to emergency vehicles, it also believes that as tires with Phase 2-level Crr values become more readily available in the market place and at a lower cost, emergency vehicle manufacturers will be able to overcome remaining technical challenges associated with the use of lower-rolling resistance tires in the emergency vehicle sector, particularly in the latter years of the Phase 2 program. As such, CARB staff proposes U.S. EPA and NHTSA to consider provisions, utilizing a phase-in approach, to require the use of tires meeting lower Crr levels than required by Phase 1, in the emergency vehicle sector.

Heavy-duty Refrigerant Issues**Oppose/Requested Change Comment****Affected document(s): Phase 2 Proposed Rules****Affected pages: 40171-40173, 40343-40344, 40562, 40613****Comment – Not appropriate to allow manufacturers to be “deemed to comply” with Air Conditioning (AC) leakage standard by using an alternative refrigerant**

U.S. EPA and NHTSA are proposing to allow a manufacturer to be “deemed to comply” with the leakage standard by using a lower global warming potential (GWP) alternative refrigerant.

Although CARB supports the promotion of the development and use of lower-GWP refrigerants for heavy-duty vehicle air conditioning, CARB staff has significant concerns regarding the proposed “deemed to comply” provisions, because CARB staff believes that maintaining a low leak rate is important, regardless of the refrigerant in use, for the reasons discussed below.

First, having a low leak rate helps realize the full direct refrigerant emission benefits of a transition to a low-GWP refrigerant by reducing the need for AC service, and hence reducing the potential for consumers to recharge their low-GWP AC systems with hydrofluorocarbon (HFC)-134a (a high-GWP refrigerant), as HFO-1234yf (a low-GWP refrigerant) is more expensive than HFC-134a. Due to similar thermodynamic properties between HFO-1234yf and HFC-134a, it is possible that an HFO-1234yf AC system can have satisfactory performance when recharged with HFC-134a. A leak-tight system will reduce this possibility, simply because the AC system is less likely to need recharging.

Second, having a low leak rate also reduces the possibility of loss of cooling performance and energy efficiency due to undercharging. Experimental and modeling studies have shown that as an AC system loses refrigerant charge, its cooling performance generally decreases, and its energy efficiency (Coefficient of Performance, or COP) first remains constant or increases slightly, then decreases markedly after the charge drops below a certain level, usually about half the nominal charge.⁵³ When significant charge loss occurs, vehicle drivers or operators would have to either endure compromised performance and efficiency, or have the AC recharged, in many cases more frequently than necessary, hence incurring emissions and cost associated with service. The most efficient and cost-effective means to tackle the undercharging issue is to use better refrigerant containment technologies to make the AC leak rate low.

Therefore, having a low leak rate complements using a low-GWP refrigerant, and ensures that the optimal benefits of the use of a low-GWP refrigerant would be achieved. Such rationale also applies to light-duty vehicle AC systems, and formed the basis for a “high-leak disincentive” term in the AC leakage credit provisions in the U.S. EPA GHG emission standard for MY 2017-2025 light-duty vehicles.

⁵³ (Clodic, 2006) Clodic, D., Refrigerant MAC leakage, new evidences from the Armines / ACEA study. IEA Workshop, Cooling Car with Less Fuel. Paris, France, October 23 – 23, 2006.

(Prölss et al., 2006) Prölss, K., Schmitz, G., Limperich, D., Braun, M., Influence of refrigerant charge variation on the performance of an automotive refrigeration system. Proceedings of the 2006 International Refrigeration and Air Conditioning Conference at Purdue. West Lafayette, Indiana, USA, July 17 - 20, 2006.

(Huyghe, 2011) Huyghe, E. P., Impact of low refrigerant charge on energy consumption of the MAC system. SAE Automotive Refrigerant System Efficiency Symposium. Scottsdale, Arizona, USA, September 27 – 29, 2011.

CARB staff further believes that retaining a leakage standard separate from a low-GWP requirement is necessary to maintain low leak rates. Such a separate leakage standard would apply to existing manufacturers to ensure that they continue to use good refrigerant containment technologies after the Phase 1 implementation period ends. The leakage standard would also apply to new entrants to the market to hold them to the same requirements. A “deemed to comply” provision would result in the use of either low-leak technologies or low-GWP refrigerants, but likely not both, hence losing the benefits that can only be realized when a leakage standard and a low-GWP requirement work in tandem.

Therefore, CARB staff recommends that U.S. EPA and NHTSA not include such a “deemed to comply” mechanism, but rather develop a provisional requirement for the use of low-GWP refrigerants (see CARB comment regarding alternative refrigerants) while retaining the leakage standard.

Oppose/Requested Change Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40212-40213

Comment – Approved low-GWP refrigerants for heavy-duty vehicles

The NPRM states that currently, there are no low-GWP refrigerants approved for the heavy-duty vehicle sector. This appears to be a misstatement. Two low-GWP refrigerants, R-744 (CO₂) and HFC-152a have been approved for motor vehicle air conditioning systems, including those for heavy-duty vehicles. (In addition, HFO-1234yf is SNAP approved for light-duty use and Chemours is applying for SNAP approval for this low-GWP refrigerant for heavy-duty use.)

Oppose/Requested Change Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40328-40329

Comment – No existing test procedures or facilities to measure AC leak rate for vocational vehicles

The NPRM states that U.S. EPA and NHTSA are not proposing a specific in-use standard for leakage, because neither test procedures nor facilities exist to measure refrigerant leakage from a vehicle's air conditioning system.

While existing test procedures (SAE Standard J2763 and J2762) could be used to assess refrigerant leakage, such procedures are time consuming and costly, and thus impractical. Therefore, CARB is not opposed to U.S. EPA and NHTSA's position of not proposing an in-use standard for leakage at this time.

Oppose/Requested Change Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40564-40565, 40617

Comment – Information required for AC leakage standard certification

To show compliance with the AC leakage standard, U.S. EPA and NHTSA are only requiring the manufacturer to provide refrigerant leak rates, describe the type of refrigerant, and identify the refrigerant capacity of the air conditioning systems.

CARB staff believes more information ought to be required to afford U.S. EPA and NHTSA the opportunity to verify the leakage calculation and to track technological development. CARB staff recommends that U.S. EPA and NHTSA require the following information from the manufacturer: the calculation that leads to the refrigerant leak rate estimates, and specifications of the system components with sufficient detail to allow reproduction of the calculation. This level of detail is consistent with the information that

CARB staff requires light-duty manufacturers to report under the AC credit provisions in its “Advanced Clean Cars” programs for light-duty vehicles.

Support Comment

Affected document(s): Phase 2 Proposed Rules; RIA

Affected pages: NPRM 40212-40213, 40292, 40301-40302; RIA 2-133 to 2-134

Comment – Extension of AC leakage standard to vocational vehicles

U.S. EPA and NHTSA are proposing to retain the AC leakage standard adopted in the Phase 1 program. U.S. EPA and NHTSA are also proposing extending the AC leakage standard to class 2b-8 vocational vehicles, which were excluded from the leakage standard in Phase 1.

CARB staff supports the proposal to continue the AC leakage standard adopted in the Phase 1 program. CARB staff believes that the leak rate limits in the Phase 1 program are at appropriate levels that balance technical feasibility and emission reduction goals. CARB staff further supports the proposal to extend the AC leakage standard to class 2b-8 vocational vehicles, because the main obstacles (complexity in building process and potentially different entities other than chassis manufacturers involved in production and installation) identified during Phase 1 regulation development have been resolved with new information received during Phase 2 rulemaking process. CARB staff further believes that it is appropriate to set the leak rate limits for vocational vehicles at the same levels as for other tractors, heavy-duty pick-up trucks and vans, due to the substantial similarity of the AC systems for these vehicle classifications.

Support Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40613

Comment – Emission-related warranty covers components whose failure would increase a vehicle’s emissions of air conditioning refrigerants

U.S. EPA and NHTSA are proposing that the emission-related warranty cover components whose failure would increase a vehicle’s emissions of AC refrigerants.

CARB staff supports this proposal. Although most refrigerant emissions occur as refrigerant gradually leaks through fittings, connection, and seals, and permeates through hoses (“regular leakage”), sudden failure of AC components may lead to the loss of the entirety or a significant portion of the refrigerant charge in a short period of time (“irregular loss”). Requiring that the emission-related warranty cover those components not only provides a venue to restore the system back to working order when component failure occurs, but also promotes the use of technologies more durable and less prone to failure, hence helping to prevent failure and reduce emissions at the design level.

Comment on Topic Where NPRM Requests Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40171-40173

Comment – Include requirement for low-GWP refrigerants once commercially available

The NPRM requests comment on industry development and other aspects of low-GWP refrigerants for heavy-duty vehicles. CARB staff supports U.S. EPA and NHTSA’s intent to consider and evaluate alternative, low-GWP, refrigerants for use in heavy-duty AC systems. Using low-GWP refrigerants would significantly reduce the climate impact from the direct refrigerant emissions from heavy-duty vehicles. R-744 (CO₂) and HFC-152a have already been approved by U.S. EPA Significant New Alternatives Policy

(SNAP) program for use in all (including heavy-duty) AC applications. One chemical manufacturer, Chemours, is preparing an application to U.S. EPA SNAP program to qualify HFO-1234yf (another low-GWP refrigerant which is SNAP approved for light-duty use) for heavy-duty applications. In general, however, industry development and adoption of low-GWP refrigerants in heavy-duty subsectors has been relatively slow compared to light-duty applications, despite the substantial similarity between the AC systems for light-duty and for heavy-duty.

CARB staff believes that regulatory requirements or incentives can motivate those research and development activities, and speed up the transition to low-GWP refrigerants for heavy-duty applications. Therefore, CARB staff is considering developing regulations to prohibit the use of high-GWP refrigerants for these applications, as a part of CARB strategies to reduce short-lived climate pollutants. For the same reason, CARB staff urges U.S. EPA and NHTSA to expedite the review and determination process for the upcoming HFO-1234yf SNAP application for heavy-duty. Furthermore, CARB staff recommends that U.S. EPA and NHTSA include in the Phase 2 standards a requirement of using low-GWP refrigerants, starting as early as legally and technologically possible. (For example: “Starting in Model Year 2021, or the model year commencing four years after this provision is promulgated, or the model year commencing three years after a low-GWP refrigerant for this end-use becomes commercially available, whichever comes last, the GWP of Motor Vehicle AC refrigerants used by manufacturers in new heavy-duty vehicles be equal to or less than 150. Being ‘Commercially Available’ in this provision means having been approved for the concerned end-use by the SNAP program, having been determined to be acceptable for adoption by at least one vehicle manufacturer, and being produced at commercial quantities. This provision must stay in effect till the end of the current regulation, and no less than three model years.” The three-year lead time is based on a stakeholder (Honeywell) comment on CARB Short-Lived Climate Pollutant Concept Paper that manufacturers would need two to three years to implement a transition to a low-GWP alternative once the refrigerant has been evaluated.

Neutral/Provide Additional Information Comment

Affected document(s): RIA

Affected pages: 5-26 to 5-28

Comment – Calculation of HFC emissions

U.S. EPA and NHTSA are proposing to estimate refrigerant emissions from heavy-duty vehicles using the same emission rates for light-duty vehicles assumed in the Vintaging Model, consistent with the methodology in U.S. EPA and NHTSA's heavy-duty Phase 1 GHG regulation.

Heavy-duty vehicles are primarily used for commercial or industrial purposes, as opposed to light-duty vehicles, typically used for commuting or pleasure. For this reason, heavy-duty vehicles, and hence, their AC systems, operate much longer than light-duty vehicles. Longer operation of the AC systems leads to higher annual refrigerant leakage and may accelerate aging-related deterioration of refrigerant containment. Therefore, CARB staff encourages U.S. EPA and NHTSA to continue to evaluate refrigerant emission rates for heavy-duty vehicles, in order to improve the understanding of refrigerant emissions for this sector. CARB staff is willing to provide assistance in this regard.

Comment on Topic Where NPRM Requests Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40258-40259

Comment – Non-CO₂ GHG emissions from trailers

The NPRM requests comment on the issue of HFCs refrigerant leakage from transport refrigeration units (TRU). U.S. EPA and NHTSA believe TRU refrigerant leakage is insignificant because they contend that trailer TRU owners have a strong incentive to limit this leakage in order to maintain the operability of the trailer's refrigeration unit and avoid financial liability for damage to perishable freight due to failure to maintain the agreed-upon temperature and humidity conditions. Also, U.S. EPA and NHTSA believe

that refrigerated van units represent a relatively small fraction of new trailers. U.S. EPA and NHTSA also asked for data on typical TRU charge capacity and the frequency of HFC leakage.

Overall, CARB staff believes U.S. EPA and NHTSA are underestimating potential refrigerant leakage from TRUs. CARB staff recommends, as discussed further below, that 1) U.S. EPA and NHTSA establish an HFC refrigerant usage monitoring program for TRUs to inform future “cause and contribute findings” and decisions to regulate refrigerants used in TRUs, and 2) U.S. EPA and NHTSA provide incentive funding for zero- and near-zero-emission transport refrigerators, such as cryogenic transport refrigerators.

CARB staff believes U.S. EPA and NHTSA may be overly optimistic when it comes to TRU owners proactively preventing and repairing refrigerant leaks. That may be partially true for the first generation owners, but many TRUs receive less maintenance as they age and their second, third, or fourth generation owners are not financially able to pay for repairs. CARB staff believes that for a considerable number of TRU owners, repairs and maintenance issues are typically addressed only when there is a performance issue with the TRU. Excluding TRUs from leakage requirements shifts the responsibility for these systems to the users, leaving manufacturers free to develop systems that may be more prone to leakage. TRU manufacturers should be held accountable for manufacturing quality products that are not prone to leakage. CARB staff is not aware of any tracking programs for HFC usage to recharge leaky TRU systems or determine leakage frequency; but, those types of programs should be considered to provide the data that is needed to assess the impact on climate change due to TRU refrigerant leakage.

TRU models that use open-drive refrigeration compressors are more susceptible to shaft seal leakage as they age. Many TRU models still use open-drive refrigeration compressors. Hermetically sealed refrigeration compressors do not have shaft seal refrigerant leakage issues because the electric drive motor is enclosed inside a housing with the refrigeration compressor. Unfortunately, hermetically sealed refrigeration compressors have not been incorporated into all TRU platforms. When used in conjunction with more energy efficient scroll compressors, GHG emissions are greatly reduced through a combination of lower fossil fuel use and the elimination of high-GWP refrigerant leakage from shaft seals.

A quick review of current, on-line TRU specification sheets revealed refrigerant charge capacities are 13 to 16 lbs per trailer TRU. Previous to 2013, when both of the major TRU manufacturers re-designed and optimized their trailer TRU platforms, refrigerant charges averaged about 20 lbs per unit. This value is consistent with the value reported in Table S4 (page S8) of the *Supporting Information Document* for the article titled “High Global Warming Potential F-Gas Emissions in California: Comparison of Ambient-based versus Inventory-Based Emission Estimates, and Implications of Refined Estimates” by Glenn Gallagher, et al.⁵⁴ This document also includes average annual leakage rates for TRUs (18.3 percent). The data sources and methodology for TRU refrigerant emissions are explained on pages S19-S21.

ACT Research estimates there are over 370,000 refrigerated trailers in the U.S. in 2015 and the average fleet age is 5.63 years.⁵⁵ This means that the total TRU refrigerant charge in the U.S. subject to potential leakage could range from 2,405 short tons to 3,700 short tons.

Refrigerant emissions may be small compared to some other commercial and industrial sectors, but significant emission reductions in this sector can be achieved by adopting lower GWP refrigerants. CARB staff believes it is hard to rationalize refrigerant leaks on the basis of small sector numbers when the GWP is so high for currently used TRU refrigerants (R-404A, used in trailer TRUs, has a GWP of 3,922) and near “drop-in” refrigerants, such as R-452A, has a GWP of 2,141.

Refrigerant R-452A is a blend of the hydrofluoro-olefin (HFO) R-1234yf that has a very low-GWP of 4 and higher GWP HFCs. Blends with greater R-1234yf cause reduced refrigeration capacity. Lost capacity could be offset by improvements in refrigeration system efficiency (requiring less energy) and more thermally efficient insulated cargo vans (requiring less refrigeration capacity). Integrated designs that balance these effects and produce net improvements in total equivalent warming impact are needed.

⁵⁴ (Gallagher et al., 2014) Gallagher et al., “Supporting Information - High Global Warming Potential F-Gas Emissions in California: Comparison of Ambient-based versus Inventory-Based Emission Estimates, and Implications of Refined Estimates,” *Environmental Science & Technology*. Available for download at: <http://pubs.acs.org/doi/suppl/10.1021/es403447v>.

⁵⁵ (ACT, 2014) Kenny Vieth (ACT Research), personal communication with Rodney Hill (California Air Resources Board), November 24, 2014, at ACT Research Co., LLC, U.S. Trailer Model, Reefer Van Population Outputs, 2014.

In the long-term, natural refrigerants, such as CO₂, may become viable if associated energy use rates can be reduced through continued design optimization. CO₂ systems have been demonstrated in Europe for refrigerated shipping containers but industry has been slow to adopt them because costs are still high as a result of low production numbers and economies of scale. Incentive programs are needed to encourage adoption of existing CO₂ refrigerant systems for shipping containers and to develop CO₂ refrigerant systems for higher ambient temperature conditions and larger capacity systems needed for 53 foot trailer TRU applications.

Cryogenic transport refrigerators also offer an alternative to vapor compression refrigeration systems that use high-GWP refrigerants. A cryogenic fluid, such as liquid nitrogen, liquid CO₂ or liquid air, is used to provide cooling to the cargo space. There are some GHG emissions associated with the production of these cryogenic fluids. For liquid nitrogen, the most common type of cryogenic transport refrigerator, well-to-wheel (WTW) GHG emission reductions are 50 to 60 percent less than a conventional TRU. This technology, as well as other zero- and near-zero-emission technologies, is discussed in CARB's *Technology Assessment: Transport Refrigerators*.⁵⁶

In addition to establishing an HFC refrigerant usage monitoring program and providing incentive funding for zero- and near-zero-emission transport refrigerators, CARB staff also recommends that U.S. EPA use its SNAP program to phase out high-GWP refrigerants, such as R404A, as soon as it determines that viable alternative are available.

Support Comment

Affected document(s): Proposed Rules Phase 2; RIA

Affected pages: RIA page 7 of 9

Comment – Refrigerated Trailer Problems

CARB staff agrees with U.S. EPA and NHTSA's statements: "Over time, refrigerated trailers can also develop problems that interfere with their ability to keep freight temperature-controlled. For example the insulating material inside a refrigerated

⁵⁶ (CARB, 2015d) California Air Resources Board, "Technology Assessment: Transport Refrigerators," August 2015, <http://www.arb.ca.gov/msprog/tech/techreport/tru_07292015.pdf>.

trailer's walls can gradually lose its thermal capabilities due to aging or damage from forklift punctures. The door seals on a refrigerated trailer can also become damaged or loose with age, which greatly affects the insulating characteristics of the trailer.”

The refrigerated transport industry is well aware of the thermal performance degradation that insulated trailers go through as a result of blowing agent outgassing, moisture intrusion, insulation breakdown caused by road-induced vibration and panel flexing, forklift damage, tree side-swiping damage, and other normal wear-and-tear. Low permeability barriers can be used to slow down outgassing. Aluminum and stainless steel sheets, various types of polymeric films, laminated foil/plastic films, metalized films, fiberglass, glass mat, and composite liners are offered as options to prevent damage and subsequent moisture intrusion. Great Dane has published charts that show up to 40 percent degradation of insulation performance over several years and much slower degradation when various options are used to conserve insulation performance.

There are no standards in the U.S. to ensure all refrigerated trailers meet minimum thermal performance standards when they are new. There are also no standards in the U.S. that measure thermal performance as an insulated trailer ages to ensure they are retired or delegated to less demanding service when thermal performance degrades. As this performance degrades, energy efficiency is compromised and TRU engines must run harder and longer to maintain temperature set points, resulting in greater GHG emissions. Market forces drive the thermal efficiency of refrigerated trailer designs in the U.S.

CARB staff encourages U.S. EPA and NHTSA to look at the regulatory requirements that must be met in Europe regarding refrigerated van insulation. The 26 members of the European Union and 23 other European, former Soviet Union, North African and Middle Eastern countries have signed on as contracting parties to the United Nations Economic Commission for Europe's (UNECE) standards under the Agreement on the International Carriage of Perishable Foodstuffs and on Special Equipment to be Used on Such Carriage (ATP). ATP requires testing and certification of the insulation and cooling capacity of refrigerated transport equipment, and provides for separate testing of TRUs. France, Italy, Russia, and Spain apply ATP standards to domestic transportation within their borders. Although the U.S. is a contracting party to ATP, the U.S. made a declaration under article 10 of the International Carriage of Perishable

Foodstuffs Act of 1982 and the implementing regulations at title 7 Code of Federal Registration (CFR) 3300, resulting in ATP standards being voluntary in the U.S.

Under the ATP, samples of new-model insulated vans are tested to ensure they meet the appropriate overall heat transfer coefficient standard (K-value). Passing models are certified for six years. Certification of insulated vans may be renewed at six year intervals by inspecting and/or testing a sample of aged insulated vans to determine if they still meet the ATP K-value standard.

In addition, market forces are at work in Europe, because diesel fuel typically costs two to three times more than U.S. fuel due to differences in government subsidies, taxes, and other influences. Greater thermal efficiency in truck and trailer vans makes legal and economic sense in the Europe, so insulation is generally thicker there (side walls are typically about four inches thick compared to two inches thick in the U.S.)

The high cost of diesel fuel, the above-mentioned thermal efficiency standards, and greater prevalence of noise ordinances have also made European refrigerated fleets more open to trying new or alternative transport refrigeration technologies. For example, there is greater use of cryogenic transport refrigerators, all-electric, and hybrid electric TRUs with various range extender strategies in Europe.

CARB staff recommends U.S. EPA and NHTSA continue to evaluate appropriate technologies and approaches that can achieve substantial emission reductions for TRUs and insulated trailers. CARB's *Technology Assessment: Transport Refrigerators*⁵⁷ provides information on zero- and near-zero-emission technologies and includes a discussion on energy efficiency for refrigeration systems and thermal efficiency for insulated cargo vans. Incentive programs are needed to transition these technologies to commercial readiness so they can be included in later phases of GHG rules.

⁵⁷ (CARB, 2015d) California Air Resources Board, "Technology Assessment: Transport Refrigerators," August 2015, <http://www.arb.ca.gov/msprog/tech/techreport/tru_07292015.pdf>.

Solar Control

Comment on Topic Where NPRM Requests Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40389-40390

Comment – Available credit for solar control for heavy-duty pickups and vans

For heavy-duty pickups and vans (class 2b/3), the NPRM requests comment on establishing a pre-defined technology menu list for off-cycle emissions, including solar control (see table VI-33, page 40390 of the NPRM). U.S. EPA and NHTSA consider these vehicles to be analogous to light-duty vehicles, since they use the same chassis test procedure. To determine the appropriate default level of credits for these heavier vehicles, the NPRM requests comments with supporting heavy-duty pickup- and van-specific data and analysis that would provide a substantive basis for appropriate adjustments to the credits levels. As with the light-duty vehicle program, U.S. EPA and NHTSA would also consider including a cap on credits generated under the pre-defined list. Such a cap addresses issues of uncertainty regarding the level of credits automatically assigned to each technology.

CARB staff believes it is appropriate to include solar control in the pre-defined technology menu list for heavy-duty pickups and vans along with a preapproved credit. Credits for solar control are largely about reducing the heat build-up in parked vehicles, reducing the need to idle to stay comfortable, and reducing the load on the engine from operating the AC, since AC use generally reduces fuel economy. Class 2b/3 vehicles likely spend less of the workday parked than do light-duty vehicles although they probably do spend part of the work day parked with the engine off. They likely spend more time idling than light-duty vehicles, some of which time could be reduced if there was less need for comfort idling. The balance of the workday is spent in motion. Solar control has a benefit during driving operations as well, although the fuel economy of vehicles with larger engines are less affected by the use of an AC than are light-duty vehicles with smaller engines. The value established for light-duty trucks of 3.9 g CO₂/mile could be used. However, CARB staff believes it would be appropriate to reduce this value by the assumed contribution from the backlite, since work vehicles often do not have substantial if any backlites. CARB staff assumed, based on an

overview of the literature for its Cool Car proposal,⁵⁸ that 30 percent of the solar energy enters the vehicle through the backlite. Therefore, CARB suggests a pre-approved credit of 2.7 g CO₂/mile for the 2b-3 sector. Manufacturers who believed that this underestimates the value that solar controls provide to their vehicle model could provide appropriate test data to substantiate a request for a greater off-cycle credit.

Neutral/Provide Additional Information Comment

Affected document(s): Phase 2 Proposed Rules; RIA

Affected pages: NPRM 40252, 40330; RIA 2-47

Comment – Inclusion of solar control as an off-cycle credit for class 4-8 vehicles

The flexibility provisions for class 4-8 vehicles include off-cycle credit provisions. Several technological approaches have been identified that would seem to merit inclusion, whether incorporated as a line-item in GEM or through available off-cycle credits. Solar controls are not specifically listed as they are for class 2b/3, but the RIA clearly states (page 2-47 of the RIA) they could be considered for credits if the effectiveness can be suitably demonstrated. CARB believes this is a reasonable approach. Because of the uncertainties surrounding estimates of effectiveness of solar control approaches in the heavy-duty fleet, it is appropriate to require demonstration of benefit in a specific case before granting credits for vehicles in these vehicle classes. See CARB docket letter dated December 3, 2014⁵⁹ for a thorough discussion of issues involved in determining appropriate solar control credits for heavy-duty vehicles.

⁵⁸ (CARB, 2009) California Air Resources Board, "Staff Report: Initial Statement of Reasons for Rulemaking - Cool Car Standards and Test Procedures," May 8, 2009, <<http://www.arb.ca.gov/regact/2009/coolcars09/coolcarsisor.pdf>>.

⁵⁹ See <http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2014-0827-0035> for our comment regarding solar load.

Neutral/Provide Additional Information Comment

Affected document(s): RIA

Affected pages: 2-47

Comment – Solar control clarification

The RIA includes some incorrect statements, as described further below. First, the RIA states, “Solar control glazing reflects some of the solar energy from the glass.” The implication of this sentence is that solar control glazing is synonymous with solar reflective glazing. However, in fact, solar control glazing includes both solar absorbing glazing and solar reflective glazing. The RIA states, “CARB found that most heavy-duty trucks today use solar absorbing glass.” The Enhanced Protective Glass Automotive Association (not CARB) has indicated that new trucks are typically provided with solar absorbing glazing (total solar transmission of around 60 percent, compared to 88 percent for clear glass). Note also that the statement applies to original glazing and may not be true for replacement glazing.

U.S. EPA and NHTSA further note they are “not proposing [solar control paint and glazing] as part of heavy-duty Phase 2, but these types of technologies could be considered under the innovative technology program.” CARB believes it is appropriate to retain the flexibility to consider solar control credits where such controls are shown to reduce overall GHG emissions and agrees that it is appropriate to require demonstration of quantified benefits before credit is granted for class 4-8 vehicles. See CARB docket letter dated December 3, 2014 for a thorough discussion of issues involved in determining appropriate solar control credits for heavy-duty vehicles.

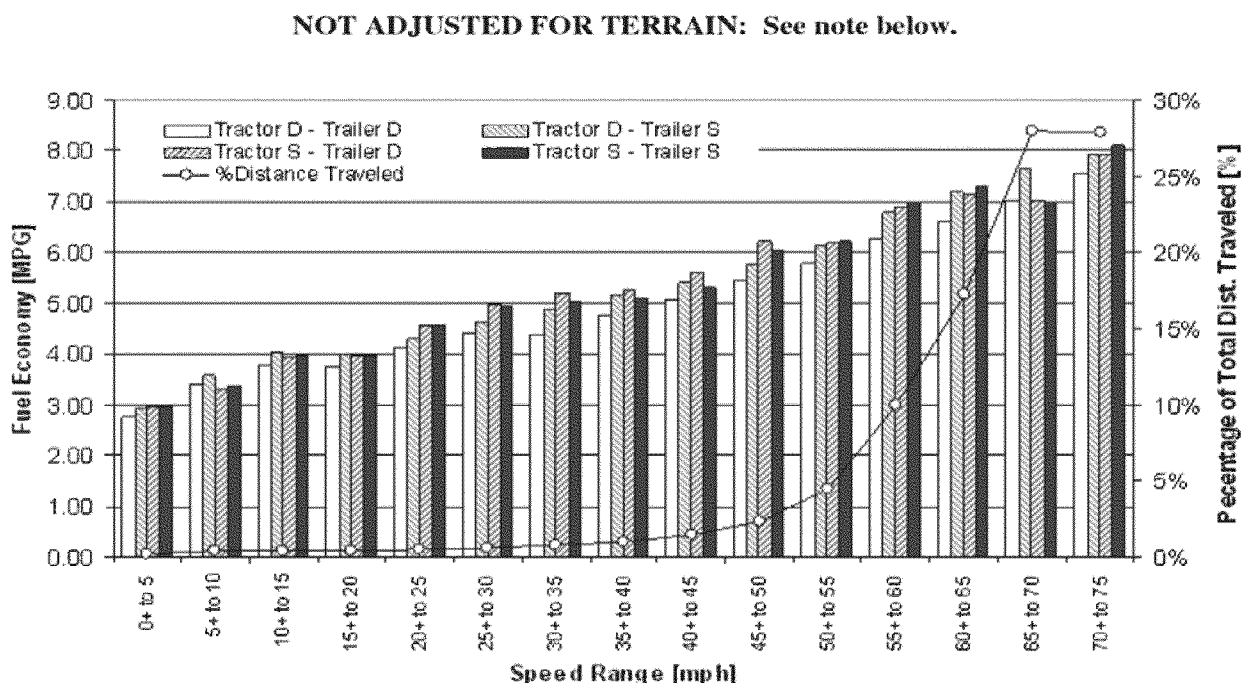
VSL**Neutral/Provide Additional Information Comment****Affected document(s): Phase 2 Proposed Rules; RIA****Affected pages: NPRM 40224; RIA 2-42****Comment – VSL Benefit**

According to the NPRM, VSLs were not considered when setting the proposed Phase 2 standards; however, U.S. EPA and NHTSA propose to allow use of VSL as a technology to meet the proposed standards. The NPRM proposes that manufacturers would receive credit for installing tamper-proof VSLs with maximum drive cycle speeds set at 65 mph; the draft GEM appears to offer up to 22 percent credit for use of VSL.

CARB staff recommends not giving any credit for VSLs at this time because available data do not fully support whether VSLs result in real-world fuel consumption and CO₂ reductions. In addition to the concerns regarding possible tampering of VSLs when in use, which the NPRM mentions, the data are still inconclusive as to whether VSLs can provide real-world fuel benefits, especially for modern trucks.⁶⁰ In fact, CO₂ emissions were shown to decrease as vehicles' speed increase (improved fuel economy at higher speeds) in Oak Ridge National Laboratory's (ORNL) Transportation Energy Data Book (Table 5.11, Fuel Economy for Class 8 Trucks as a Function of Speed and Tractor-Trailer Tire Combination, and Figure 5.3 (shown below – Figure 6), Class 8 Trucks Fuel Economy as a Function of Speed and Tractor-Trailer Tire Combination and Percentage of Total Distance Traveled as a Function of Speed, available at <http://cta.ornl.gov/data/chapter5.shtml>).

⁶⁰ See Attachment 7 for California Air Resources Board's Portable Emissions Measurement System's Data on 2010 Standard Trucks – Carbon Dioxide Emission Rate vs. Speed.

Figure 6: Class 8 Truck Fuel Economy as a Function of Speed and Tractor-Trailer Tire Combination and Percentage of Total Distance Traveled as a Function of Speed⁶¹



Note: D = Dual tire. S = Single (wide) tire.

These data were not adjusted to account for the effects of terrain. The increase in fuel economy for speeds above 70 mph is likely due to the vehicle achieving high speeds while traveling down slope. Therefore, this increase in fuel economy is not expected to be characteristic of all travel at these higher speeds.

The data presented above indicates there may be no benefit through use of VSLs or even possibly a dis-benefit; hence, CARB staff recommends no credit in GEM for VSLs.

The issue of whether and what credit to offer for VSLs is timely and important because tamper-proof VSLs may soon be required in the U.S. by federal regulation. In 2006, the American Trucking Association (ATA), Road Safe America and a group of motor carriers petitioned NHTSA to initiate rulemaking to require vehicle manufacturers to install a device to limit the speed of trucks with a GVWR greater than 26,000 lbs to no more than 68 mph. The petitions were based on a desire to reduce the number and

⁶¹ (ORNL, 2008) Capps, Gary, Oscar Franzese, Bill Knee, M.B. Lascrain, and Pedro Otaduy. "Class-8 Heavy Truck Duty Cycle Project Final Report," ORNL/TM-2008/122, Oak Ridge National Laboratory, Oak Ridge, TN, December 2008.

severity of crashes involving large trucks.⁶² NHTSA in 2011 agreed to consider a rule requiring speed limiters and has stated they intend to propose such a rule later this year (<http://www.regulations.gov/#!documentDetail;D=NHTSA-2007-26851-3854>).⁶³ As a result, VSLs are likely to be widely utilized in heavy-duty truck fleets in the near future; thus, the issue of understanding whether or not VSLs have an emissions benefit and not offering too much credit for them in GEM is imperative.

Before offering any credit for VSLs, CARB staff suggests that U.S. EPA and NHTSA should thoroughly evaluate whether they would result in real-world CO₂ and fuel consumption benefits. CARB staff is willing to offer our help in this evaluation if needed.

If U.S. EPA and NHTSA decide to give credit in Phase 2 GEMs for VSLs, VSL benefit should also be included in premising the proposed standards. If credit for use of VSLs is granted without considering them when setting stringency, use of VSLs will only reduce use of other technologically feasible technologies that were included when setting stringency, without providing further benefit.

Oppose/Requested Change Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40224

Comment – VSL credit in GEM

The NPRM proposes that manufacturers would receive credit for installing tamper-proof VSLs with maximum drive cycle speed set at 65 mph or less (the minimum VSL value input in GEM is set at 45 mph). The draft GEM model appears to offer up to 22 percent credit for use of VSL,⁶⁴ which is unreasonably high. In addition, as mentioned in the above comment, whether or not use of VSL will provide emissions benefit is still an open question. Thus, CARB staff strongly suggests U.S. EPA and NHTSA remove the

⁶² (NACFE, 2011) North American Council for Freight Efficiency, "Speed Limiters Save Money and Fuel without Significant Productivity Loss," February, 2011, <<http://nacfe.org/wp-content/uploads/2011/04/NACFE-ER-1003-Speed-Limiters-Mar-2011.pdf>>, accessed on July 9, 2015.

⁶³ (NHTSA, 2011) Federal Motor Vehicle Safety Standards: Engine Control Module Speed Limiter Device, Federal Register Notice, January 3, 2011, <<http://www.regulations.gov/#!documentDetail;D=NHTSA-2007-26851-3854>>, accessed on July 30, 2015.

⁶⁴ This is estimated based on GEM results for sample GEM input file of tractor. The specified tractor configuration (350 hp with AMT transmission) was run with four scenarios (no VSL - baseline, 45 mph speed limit VSL, 55 mph speed limit VSL, and 65 mph speed limit VSL). Projected CO₂ emissions for each scenario were used to calculate percent CO₂ reduction from baseline (no VSL use) (22%, 11%, and 0.01% CO₂ reduction for VSL set at 45 mph, 55 mph, and 65 mph, respectively).

credit offered for use of VSL in GEM, pending confirmation of the actual fuel consumption and CO₂ benefits VSLs achieve in the real world.

Comment on Topic Where NPRM Requests Comment

Affected document: Phase 2 Proposed Rules

Affected pages: 40250

Comment – Participation of owners in VSLs’ emissions credit transactions

The NPRM requests comment on potential means by which truck owners that use VSLs could directly participate in Phase 2 emission credit transactions. It is not clear what fleet owners would do with Phase 2 credits and allowing fleet owners to garner such credits would unnecessarily complicate implementation and enforcement of the Phase 2 program. As a result, CARB staff recommends not including owners in emission credit transactions for VSL installation.

In-Use Standards

Oppose/Requested Change Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40206, 40 CFR Part 1036

Comment – Appropriateness of useful life adjustment factor

The NPRM requests comment on the useful life adjustment factor allowance.

Consistent with Section 202(a)(1) and 202(d) of the CAA, for Phase 1, U.S. EPA established in-use standards for heavy-duty engines. Based on their assessment of testing variability and other relevant factors, U.S. EPA established in-use standards by adding a 3 percent adjustment factor to the full useful life emissions and fuel consumption results measured in U.S. EPA certification process to address measurement variability inherent in comparing results among different laboratories and different engines. See 40 CFR part 1036. U.S. EPA and NHTSA are not proposing to change this for Phase 2, but request comment on whether this allowance is still necessary.

CARB staff believes that the current 3 percent adjustment factor should be removed. An emission standard inherently already accounts for measurement variability due to different laboratories and engines being tested. While the 3 percent in-use factor was allowed for Phase 1 vehicles since the Phase 1 standards were new, this in-use factor should not be necessary for Phase 2 vehicles. Historically, CARB typically does allow an in-use factor when phasing in new standards that force new technology. Many manufacturers have already implemented the technologies that will be required to meet the proposed Phase 2 standards.

In conclusion, CARB staff encourages U.S. EPA and NHTSA to not apply the proposed 3 percent adjustment factor to the in-use emission standard.

Neutral/Provide Additional Info Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40557, 40572

Comment – Not-to-Exceed (NTE) Standards

There may be opportunities to fold in-use compliance testing for CO₂ and N₂O into the NTE protocol currently in place for criteria pollutants. This could provide greater assurance of in-use compliance, and provide manufacturers an efficient way to demonstrate in-use compliance for greenhouse gas and criteria pollutants simultaneously. When U.S. EPA and NHTSA next consider changes to the NO_x standards and NTE requirements, CARB staff recommends considering adding in-use testing of CO₂ and N₂O. A manufacturer could conduct NTE testing and determine in-use compliance for the entire suite of pollutants (GHG as well as other criteria pollutants).

CARB staff also suggests that tracking of vehicle weight and speed with engine CO₂/N₂O emissions could be used as a tool to determine overall vehicle performance. This information could be used as a GEM correction/correlation tool going forward.

Comment on Impact on Fuel Consumption, GHG Emissions, and Climate Change

Natural Gas

Neutral/Provide Additional Information Comment

Affected document(s): Phase 2 Proposed Rules; RIA

Affected pages: NPRM 40159, 40389, 40503-40509; RIA 13-1 to 13-42

Comment – Phase 2 standards apply exclusively at the vehicle tailpipe and do not reflect lifecycle emissions

CARB staff understands the reasoning behind U.S.EPA and NHTSA's proposal to apply Phase 2 standards exclusively at the vehicle tailpipe (rather than reflecting full lifecycle emissions), in order to better harmonize the fuel efficiency and GHG emission standards. CARB staff also appreciates the inclusion of a lifecycle analysis for natural gas and diesel trucks, even though the proposed standards are tailpipe only, as it illustrates the relative GHG benefits of different vehicle/fuel combinations and the potential reduction in the tailpipe GHG benefits of CNG due to methane leakage during refueling or LNG boil-off as the vehicle sits idle.

CARB staff suggests including BEVs and FCEVs in the lifecycle analysis. Those technologies are extremely efficient at utilizing energy for motive power and the lifecycle results are compelling. GVWR are expected to produce significantly less GHG emissions than similar MY conventional diesel fueled trucks on a WTW basis.

Oppose/Requested Change Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40171, 40502-40503

Comment – Natural gas engines must meet the Phase 2 diesel or gasoline tailpipe CO₂ standards

According to the NPRM, natural gas engines must meet the Phase 2 diesel or gasoline standards (depending on the service application) and fuel consumption is then calculated according to their tailpipe CO₂ emissions. This would likely create a small balanced incentive for natural gas use. A natural gas vehicle that achieves approximately the same fuel efficiency as a diesel powered vehicle would emit 20

percent less CO₂; a natural gas vehicle with the same fuel efficiency as a gasoline vehicle would emit 30 percent less CO₂.⁶⁵

CARB staff believes that future natural gas engines, if certified to one of CARB's optional NOx standards and operated on renewable natural gas,⁶⁶ would reduce both NOx and GHG emissions. Many stakeholders are advocating for broad use of natural gas vehicles in California, particularly in the South Coast Air Basin and other areas that need near-term NOx reductions to meet federal ozone ambient air quality standards.

However, as shown in U.S. EPA and NHTSA's lifecycle analysis, if methane emissions from the vehicle and from upstream production and distribution are not well controlled (for example, boil-off from LNG vehicles that are parked for multiple days), natural gas engines have the potential to actually increase GHG emissions. It is important to strengthen natural gas engine and vehicle requirements to ensure we maximize the benefits of the cleaner fuel as well as the most efficient vehicle technology. CARB staff will continue to work with U.S. EPA and NHTSA as well as engine and vehicle manufacturers to require the use of efficient engine and vehicle technology, reduce NOx emissions, and minimize fugitive methane emissions. Additional comments on requirements are also included.

Oppose/Requested Change Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40512

Comment – Lifecycle emissions incorporated into the certification level

Based on U.S. EPA and NHTSA's lifecycle analysis, the impact of leaks and other methane emissions that occur upstream of the vehicle can potentially be large enough to more than offset the CO₂ benefit of natural gas vehicles as measured at the vehicle tailpipe. U.S. EPA and NHTSA are considering separate action to control these upstream emissions. U.S. EPA and NHTSA are concerned that the high-GWP of methane makes even small leaks of natural gas of concern. The NPRM requests

⁶⁵ This is because natural gas has lower carbon content than either diesel or gasoline.

⁶⁶ See

http://www.arb.ca.gov/msprog/onroad/cert/mdehdehdv/2016/cummins_mhdd_a0210630_8d9_0d20-0d01_ng.pdf and

http://www.arb.ca.gov/msprog/onroad/cert/mdehdehdv/2016/cummins_ub_a0210629_8d9_0d20-0d01_ng.pdf for Cummins natural gas certification on 8.9L engines to 0.02 g/bhp-hr NOx standard, September 2015.

comment on whether it would be appropriate to adjust the tailpipe GHG emission standard for natural gas vehicles to reflect the relative lifecycle emissions relative to diesel.

U.S. EPA and NHTSA state that if, for example, they were to determine that the lifecycle climate impacts of natural gas vehicles were 150 percent of the tailpipe GHG emissions, while the lifecycle climate impacts of diesel vehicles were 135 percent of the tailpipe GHG emissions, they could approximate the relative climate impacts by setting the natural gas tailpipe emission standard 10 percent lower than the diesel tailpipe standard. U.S. EPA and NHTSA state “We recognize that there is significant uncertainty in assessing these relative climate impacts, and that they could change as new production methods and/or regulations go into effect. Thus commenters supporting making such an adjustment are encouraged to address this uncertainty. Commenters are also encouraged to address how such an adjustment for GHG emissions would impact the closely coordinated EPA and NHTSA heavy-duty Phase 2 program including how a potential adjustment for upstream methane emissions for natural gas fueled vehicles would impact the coordination of EPA GHG regulations with the NHTSA fuel consumption regulations.”

CARB staff believes that future natural gas engines, if certified to one of CARB’s optional NO_x standards and operated on renewable fuels, have the potential to reduce both NO_x and GHGs and provide needed near term reductions. To ensure those reductions are realized, it is important to strengthen natural gas engine and vehicle requirements to maximize the benefits of the cleaner fuel as well as the most efficient vehicle technology. CARB staff believes it is appropriate to have separate standards for natural gas engines and also important that actions be taken to minimize methane emissions from both the vehicle and the upstream natural gas production and distribution system. Steps to minimize emissions from the vehicle should include requiring a closed crankcase, limiting boil-off from LNG vehicles, and limiting tailpipe methane and N₂O. Additional comments on requirements are also included.

As for adjusting tailpipe standards to account for upstream emissions, the ICCT in their “Assessment of Heavy-Duty Natural Gas Vehicle Emissions: Implications and Policy Recommendations”, July 2015, recommends an approach that would phase-in the inclusion of upstream emissions in the certification for natural gas heavy-duty vehicles. CARB supports phasing-in inclusion of upstream emissions in the certification for natural gas heavy-duty vehicles.

Oppose/Requested Change Comment**Affected document(s): Phase 2 Proposed Rules****Affected pages: 40506****Comment – Tailpipe standards for natural gas vehicles**

U.S. EPA and NHTSA state: “For 2014 and later OEM compression ignition natural gas trucks or natural gas conversions of 2014 and later diesel trucks, the trucks must meet a 0.1 g/bhp-hr methane emission standard in the case of a larger truck engine tested with an engine dynamometer, and a 0.05 g/mi methane emission standard in the case of smaller trucks tested on a chassis dynamometer. For spark-ignited engines, the standards take effect in 2016. Natural gas truck manufacturers are allowed to offset methane emissions exceeding the methane emission standard by converting the methane emission exceedances into CO₂ equivalent emissions and using CO₂ credits. For the initial natural gas engine certifications that U.S. EPA received for 2014, the truck manufacturers chose to continue to emit high levels of methane (around 2 g/bhp-hr) and use CO₂ credits to offset those emissions. We don’t know if this practice of will continue in the future; however, for evaluating the lifecycle impacts of natural gas heavy-duty trucks, the 2014 and later natural gas heavy-duty trucks may in fact have an emissions profile more like the pre-2014 trucks and not like the 2014 and later trucks.”

CARB staff suggests that U.S. EPA and NHTSA investigate the feasibility of more stringent tailpipe standards for methane and N₂O. Considering the high-GWP of methane, a 0.1 g/bhp-hr methane standard is equivalent to 4 to 8 percent of the proposed CO₂ standards, depending on vehicle and vocation types. CARB staff also suggests that U.S. EPA and NHTSA consider eliminating or at least phasing out the use of CO₂ credits in lieu of compliance with tailpipe methane standards.

Support Comment**Affected document(s): Phase 2 Proposed Rules****Affected pages: 40187, 40249-40250, 40325****Comment – Reflecting weight decreases for lightweight components, and weight increases for natural gas fuel tanks versus gasoline or diesel tanks**

CARB staff supports the Phase 2 proposal to give weight reduction credit for the use of lightweight components, and a weight increase (i.e., negative credit) for natural gas

vehicles to reflect the increased weight of natural gas fuel tanks versus gasoline or diesel tanks. The weight reductions or increases translate into decreased or increased CO₂ emissions in GEM. The weight increases would be 600 lbs for a compression ignition LNG tractor, 525 lbs for a spark-ignited CNG tractor, and 900 lbs for a compression ignition CNG tractor; those same weight increases would also apply to vocational vehicles. The weight reductions (credits) for lighter components range from 4 lbs to 588 lbs.

Neutral/Provide Additional Information Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40504

Comment – More efficient natural gas storage

The NPRM states that an adsorbent for natural gas (ANG), called metal organic framework (MOF) for storing CNG, has been developed and is being tested for large scale use. The substance stores the same quantity of natural gas in a smaller volume at the same pressure (about 60 percent of the energy density of diesel fuel), or stores the same density of natural gas at a lower pressure.

CARB staff believes there is potential in the both adsorbent technology as well as conformable tanks. CARB staff suggests that to the extent that those technologies contribute to lighter weight tanks in the future, U.S. EPA and NHTSA should consider either revising the natural gas weight “penalties” or allow the manufacturers to get credit under the off-cycle technology credits (formerly referred to as “innovative technologies”).

Support Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40187, 40249-40250, 40325

Comment – Natural gas engines and vehicles certifying according to intended service class

CARB staff supports the Phase 2 proposal to require any natural gas engine qualifying as a medium heavy-duty (19,500 to 33,000 lbs GVWR) or heavy heavy-duty (over 33,000 lbs GVWR) natural gas engine to be subject to all the emission standards (GHG

and criteria pollutant) and other requirements, including the longer useful life and warranty provisions, that apply to compression ignition engines.

CARB supports the proposal to require medium heavy-duty and heavy heavy-duty engines to meet compression ignition requirements (useful life, warranty, not-to-exceed limits, criteria pollutant standards) because they are more stringent and protective of air quality compared to the comparable spark-ignited requirements.

CARB believes there are some 6.8 to 9 liter natural gas engines (produced by BAF, Greenkraft, Impco, Landi Renzo, and Power Solutions) that are currently being certified to the Otto-cycle requirements that may be offered in the future in medium heavy- and even heavy heavy-duty vehicle configurations, and thus could ultimately be impacted by the proposed requirements. Many of these natural gas “converters” offer vehicles primarily in the light heavy-duty classes, and there is some possibility that with the additional requirements they may no longer choose to offer medium heavy-duty and heavy heavy-duty natural gas vehicles. However, this should have minimal market impact as Cummins is already certifying their spark-ignited natural gas engines to the compression ignition requirements.

Support Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40208, 40510

Comment – Closed crankcase requirement for natural gas engines

CARB staff supports the Phase 2 proposal to require closed crankcases for all natural gas engines, including those subject to compression ignition standards. An open crankcase has historically been allowed for diesel-fueled engines, as recirculating those crankcase emissions with their high PM levels could potentially foul turbochargers and aftercooler heat exchangers. Natural gas vehicles have low PM emissions, and requiring a closed crankcase is appropriate. The European Union standard currently compels the use of closed crankcase ventilation systems, and Cummins ISL G Euro V engines already have closed crankcase ventilation.

Support Comment**Affected document(s): Phase 2 Proposed Rules****Affected pages: 40510-40512, 40519-40520, 40609****Comment – Proposal to require 5-day hold time for LNG vehicles**

CARB supports the Phase 2 proposal to require a 5-day hold time for LNG vehicles, to reduce the potential for an LNG boil-off event. Manufacturers would have to follow current industry recommended practice, SAE Standard J2343 for 5-day hold time to limit boil-off emissions from LNG vehicles. Boil-off events occur when a LNG truck is parked or driven very little, the fuel vaporizes, and the pressure inside the tank increases to a maximum of 230 pounds per square inch (psi) and a safety release valve releases the methane gas to vent excess pressure. As estimated in U.S. EPA and NHTSA's lifecycle analysis, each boil-off event has the potential to release from 3 to 9 gallons of LNG for each boil off event, depending on the fill level of the LNG tank. And because methane has a global warming potential that is 25 times higher (assessed over 100 years) than CO₂, that equates to 132,000 to 140,000 grams of CO₂ equivalent emissions. CARB staff concurs that the venting characteristics inherent in LNG vehicles are an emissions concern, and recommends adoption of this requirement. CARB staff believes this is a good step towards limiting the release of methane from natural gas fueled vehicles, and that this will better standardize the requirements. CARB may consider similar requirements in the future.

The NPRM also requests comments on other potential requirements to control LNG boil-off emissions. These include control technologies like methane canisters, a methane burner, a catalyst to convert the methane to CO₂, an on-board monitoring requirements to track boil-off events, and other ways to reduce emissions from LNG refueling. CARB staff has not made final determinations on the efficacy of those technologies at this time, but will further investigate their effectiveness.

Neutral/Provide Additional Information Comment**Affected document(s): Phase 2 Proposed Rules****Affected pages: 40503-40509****Comment – Supplemental and clarifying information regarding WTW analysis of CNG and LNG and comparison to CARB results.**

CARB staff has four main comments regarding the WTW analysis presented in the NPRM:

1. **The analysis should use GREET's U.S. diesel result, and should identify the version of GREET used.** U.S. EPA and NHTSA use a 2005 NETL analysis to determine the carbon intensity of U.S. diesel. Given that a version of Argonne National Laboratory's GREET model was used for the majority of U.S. EPA and NHTSA's WTW natural gas analysis, CARB staff recommends using the result from the same version of GREET for diesel. If they are based on a different baseline, the results should not be expressed in percent reduction from diesel; it would be preferable to use the same U.S. diesel baseline, or just report the carbon intensity directly.⁶⁷ Also, the NPRM does not identify the version of the GREET model used in U.S. EPA and NHTSA's WTW analysis of natural gas fuels (first mention of the use of the GREET model occurs on page 40404). Argonne National Laboratory releases an update nearly every year and 2013-2014 versions included changes to natural gas systems, so it is important to note the model year.
2. **USEPA accurately portrays CARB's August 2014 WTW analysis, but we would like to share some updated information based on our work since then.** On page 40508-40509, the NPRM presents draft results from CARB's August 2014 WTW analysis. CARB staff has since finalized its estimates of WTW carbon intensity for CNG and LNG: without adjusting for natural gas vehicle fuel economy, the carbon intensity of CARB's North American natural gas

⁶⁷ CARB staff finds the WTW emissions of California ULSD to be 102 g CO₂e/MJ, approximately 9 gCO₂e/MJ higher than the value U.S. EPA uses to represent the WTW emissions of average U.S. diesel (approximately 93 gCO₂e/MJ or 98,000 g/MMBtu, which we estimate from Figure 13-2 of the RIA). This lack of common baseline confounds the comparison between the NPRM's and CARB's results for natural gas fuels.

to CNG pathway is 78.36 gCO₂e/MJ, or 76.82 percent of CARB-ULSD WTW emissions and the carbon intensity of CARB's North American natural gas to LNG pathway is 84.55 gCO₂e/MJ, or 82.89 percent of CARB- Ultra Low Sulfur Diesel (ULSD) WTW emissions.

3. **U.S. EPA and NHTSA's WTW analysis results in the NPRM are similar to CARB's and where they differ, the differences are primarily due to unique California circumstances.** CARB staff agrees that the U.S. EPA and NHTSA's results "are very similar to those estimated by CARB and when there are differences, the differences are as expected."

CARB staff believes that the carbon intensity of CNG determined by U.S. EPA and NHTSA is lower than the result in CARB's analysis primarily because the transmission distance from Western U.S. natural gas sources to end users in California is greater than the national average.

CARB staff estimates the carbon intensity of LNG to be lower than U.S. EPA and NHTSA's analysis, due to the following factors:

- CARB staff assumes a typical liquefaction stage thermal efficiency of 90 percent (resulting in 8.44 gCO₂e/MJ for the liquefaction stage), rather than 80 percent (which would result in 18.29 gCO₂e/MJ using California grid electricity), reflecting an assumption that most LNG used in California is produced at large centralized facilities. Under the LCFS, each LNG producer must demonstrate the actual efficiency, meaning some individual LNG pathways will result in higher WTW emissions than given in CARB's illustrative scenario;
- CARB staff does not quantify any venting from the refueling or the vehicle operation stages due to lack of data, but does not disagree with the sensitivity analysis used by U.S. EPA and NHTSA; and
- There may be differences in the mode and distance of LNG transport; the U.S. EPA and NHTSA document does not provide sufficient information to determine the transportation and distribution assumptions or their resulting impacts.

4. **CARB staff does not recommend U.S. EPA and NHTSA rely on the U.C. Davis study referenced on page 40509 of the NPRM, as we believe that study is flawed.**⁶⁸ The U.C. Davis study used GREET 2014 to explore the role of natural gas in the U.S. trucking industry, and reported that:
- (A) CNG has higher WTW GHG emissions than LNG, and
 - (B) CNG and LNG have higher WTW GHG emissions relative to diesel when used in spark-ignited engines (with EER=0.9).

CARB staff disagrees with this analysis and finds that under most scenarios, when a methane GWP of 25 is used, both CNG and LNG have a life cycle GHG benefit over diesel. CARB staff believes the UC Davis report reached incorrect conclusions due to using flawed assumptions, including inappropriately using default transport parameters in GREET 2014 (which tend to reduce assumed LNG transport emissions), incorrect assumptions regarding the efficiency of LNG-fueled heavy-duty pilot ignition engines, and not quantifying losses from the LNG vehicle tanks, among others.

Oppose/Requested Change Comment

Affected document(s): RIA

Affected pages: 13-1 to 13-23

Comment – Supplemental and clarifying information regarding CARB analysis

There is a misprint/typo on page 13-22:

For the CARB emissions estimates, we used the estimates made for what it terms purposes” using the 2013 version of the CARB GREET model as published in August, 2014.

⁶⁸ (Jaffe, 2015) Jaffe, Amy Myers, “Exploring the role of Natural Gas in U.S. Trucking,” NextSTEPS Program, UC Davis Institute of Transportation Studies, February 18, 2015.

CARB staff believes this should read:

For the CARB emissions estimates, we used the estimates made for what it terms “illustrative purposes” using the ~~2013~~ draft version of the CA-GREET2.0 model as published in August, 2014.

Regarding the statement comparing CARB and U.S. EPA results on page 13-22, “CARB estimates that CNG engines emit 76 percent of the CO₂eq emissions as a diesel truck, while our analysis estimates that CNG engines emit 81 percent of the CO₂eq emissions as a diesel truck,” the “percent of diesel emissions” basis does not provide a direct comparison of the CNG results, as CARB and U.S. EPA do not use the same diesel emissions as baseline. In the CA-GREET2.0 analysis, CARB-ULSD was determined to have a carbon intensity of 102.01 gCO₂e/MJ, while U.S. EPA and NHTSA appear to use approximately 93 gCO₂e/MJ as a baseline (98,000 g/MMBtu, estimated from Figure 13-2 of the RIA).

While CARB staff does not object to the value used as a diesel baseline (this value is meant to reflect the national average WTW emissions of diesel fuel and CARB staff can provide no insight on the accuracy of results outside of California), we suggest that CNG, LNG and diesel should be compared using the same model in order to obtain the most robust results. Given that a version of Argonne National Laboratory’s GREET model was used for the majority of U.S. EPA and NHTSA’s WTW natural gas analysis, we recommend using the result from the same version of GREET for diesel.

The parameters used to determine methane leakage, LNG boil-off, process energy demand, and the impacts of these inputs are presented clearly and comprehensively; however, the NPRM do not provide information on the transportation and distribution assumptions or resulting impacts modeled for the CNG or LNG pathways. These transport modes and distances are a major driver of the difference between the GREET and CA-GREET2.0 model results. If default transport parameters from GREET 2014 were used in U.S. EPA and NHTSA’s analysis, the following table provides a breakdown and contrast of the differences in the two models.

Table 17: GREET vs. CA-FREET Model

Life Cycle Stage	Default GREET 2014 North American NG to CNG pathway		Default CA-GREET2.0 North American NG to CNG pathway		
	Input/Assumptions	Impact g CO ₂ e/MJ	Input/Assumptions	Impact g CO ₂ e/MJ	
Pipeline Transmission & Distribution - pipeline energy intensity = 1.64E Btu/ton-mile	750 miles from production and processing facility to refueling station	2.87	1000 miles from Western U.S. sources of NG production and processing facilities to refueling stations in California	3.83	CNG
Pipeline Transmission Leakage - distance-dependent leakage factor	Transmission and Storage Methane Venting and Leakage factor = 81.189 g CH ₄ /MMBtu NG/MMB miles, adjusted to 750 miles	2.12	GREET 2014 leakage factor x (1000 mi/680 mi)	2.83	
Pipeline Distribution Leakage - constant leakage factor	Pipeline distribution to refueling stations (leakage factor = 63.635 g CH ₄ /MMBtu NG)	1.51	Pipeline distribution to refueling stations (GREET 2014 leakage factor)	1.51	
Total T&D		6.50		8.17	
	Default GREET 2014 North American NG to LNG pathway		Default CA-GREET2.0 North American NG to LNG pathway		
	Input/Assumptions	Impact g CO ₂ e/MJ	Input/Assumptions	Impact g CO ₂ e/MJ	
Pipeline Transmission & Distribution - pipeline energy intensity = 1.64E Btu/ton-mile	50 miles from production and processing facilities to a liquefaction plant	0.19	1000 miles from Western U.S. sources of NG production and processing facilities to liquefaction facilities in California	3.83	LNG
Pipeline Transmission Leakage - distance-dependent leakage factor	Transmission and Storage Methane Venting and Leakage factor, adjusted to 50 miles	0.14	GREET 2014 leakage factor x (1000 mi/680 mi)	2.83	
Pipeline Distribution Leakage - constant leakage factor	No pipeline distribution; this pathway assumes liquefaction plants are located on main transmission pipeline	0	No pipeline distribution; this pathway assumes liquefaction plants are located on main transmission pipeline	0	
Other Transport modes	LNG 50% by Barge (500 miles), 50% by Rail (800 miles), and distribution via diesel truck (30 miles)	0.82	LNG distribution via diesel truck (50 miles)	0.37	
T&D Boil-off with 80% recovery	0.1% loss per day for 2.7 days of T&D	0.26	0.1% loss per day for 0.1 days of T&D	0.01	
Storage Boil-off with 80% recovery	0.1% loss per day for cumulative 8 days of Storage (at terminal and refueling station; not included here are emissions from an additional 5 days of storage at the liquefaction plant)	0.83	0.1% loss per day for cumulative 8 days of Storage (at terminal and refueling station; not included here are emissions from an additional 5 days of storage at the liquefaction plant)	0.83	
Total T&D		2.25		7.87	
GREET 2014			CA-GREET2.0		

Emission Benefits Estimates

Neutral Comment to Provide Additional Information

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40216, 40220, 40225, 40226, 40227, 40238, 40393 – 40394, 40412

Comment – NOx benefits from the extended use of APUs appear overestimated

According to page 40219 of the NPRM, to date, manufacturers are meeting the 2014 MY GHG standards without the use of automatic engine shutdown (AES) systems or APUs. U.S. EPA and NHTSA assume an APU/AES technology adoption rate of 90 percent for 2024+ MY class 7 and 8 tractors (page 40393 – 40394 of the NPRM). Given that manufacturers complied with Phase 1 without using APUs, CARB staff believes a 90 percent adoption rate may be too high.

Additionally, CARB's engine certification database shows that almost all of the 2014 MY engines which are sold in California (especially in class 8) are certified (as 50-State families) to the California clean idle engine requirements of 30 grams/hour NOx at idle. Following U.S. EPA and NHTSA's projection of increased use of APUs during extended idling in combination tractors, the NPRM claims 34 percent NOx emissions reduction in year 2050 (page 40412 of the NPRM). Considering that APUs emit only a slightly lower NOx emissions than CA clean idle certified engines (because they are certified to CA clean idle requirements), such a high reduction in tailpipe NOx emissions (i.e., 34 percent) is not expected.

Therefore, CARB staff encourages U.S. EPA and NHTSA to:

1. Re-evaluate the projected level of AES/APU systems that will be used by manufacturers to comply with the requirements of the proposed regulation and;
2. Provide more information on the methodology and assumptions used to estimate the NOx emission benefits associated with this regulation.
3. Update the NOx emission benefit estimates to account for the current prevalence of clean idle certified engines.

Neutral Comment to Provide Additional Information

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40397 - 40406

Comment – GHG emissions reductions

According to Table VII-13 of the NPRM, the annual downstream GHG emissions impact of the proposed regulation (preferred Alternative 3 vs. Alternative 1a baseline using Analysis Method A) in year 2050 is reported as ~134.9 MMT CO₂eq (at the national level). In order to compare these federal emissions reductions estimates to a California-specific analysis, it is necessary to have estimates of the baseline emissions (baseline Alternatives 1a and 1b). However, the NPRM does not provide baseline information.

Therefore, CARB staff encourages U.S. EPA and NHTSA to either provide estimates of GHG emissions (in MMT CO₂eq) for baseline scenarios (Alternatives 1a and 1b), or report the benefits as a percent reduction from the baseline emissions similar to those provided in Section VIII of the NPRM for non-GHG emissions (e.g. Table VIII-7).

Comment on Non-GHG Emissions and their Associated Effects

NO_x

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40149-40150

Comment – NO_x reductions from heavy-duty vehicles are crucial to California's air quality goals

In the NPRM, U.S. EPA and NHTSA rightly noted California's unique challenge to attain the ozone and PM NAAQS in many regions of the state. In particular, California's South Coast Air Basin and San Joaquin Valley Air Basin, the nation's only two "Extreme" ozone non-attainment areas, require significant reductions in NO_x and volatile organic gases to reach state air quality goals. Since heavy-duty vehicles currently emit approximately one-third of the state's NO_x emissions, measures to reduce emissions from such vehicles are crucial for California. California needs dramatic further reductions in NO_x emissions beyond what our current programs will achieve by 2031 to attain health-based standards for ozone and fine PM. Reaching these attainment levels in California's South Coast Air Basin will require an approximate 70 percent reduction in NO_x from today's levels by 2023, and an overall 80 percent reduction in NO_x by 2031. To make matters more challenging, U.S. EPA and NHTSA are revising the NAAQSs (due to be finalized by December, 2015). These new NAAQSs, which are more stringent than existing ones, will require even greater NO_x emission reductions. This means that heavy-duty NO_x emission reduction strategies must begin now and in parallel with GHG emission reduction strategies.

California's compelling need for emission reductions necessitates further actions now, despite the past significant achievements of U.S. EPA and CARB efforts to reduce heavy-duty vehicle emissions. CARB's *Sustainable Freight Pathways to Zero and Near-Zero Discussion Document* (Discussion Document)⁶⁹ describes actions to identify and prioritize potential immediate and near-term measures and strategies to reduce criteria pollutants and GHG emissions from all vehicle/equipment sectors that move

⁶⁹ (CARB, 2015b) California Air Resources Board, "Sustainable Freight – Pathway to Zero and Near-Zero Emissions," April 2015, <<http://www.arb.ca.gov/gmp/sfti/sustainable-freight-pathways-to-zero-and-near-zero-emissions-discussion-document.pdf>>.

freight in California to assist in meeting both the State's air quality attainment and climate needs.

For the trucking sector, these strategies and measures include expanded enforcement efforts and financial incentive opportunities, reduced opacity limits for filter-equipped trucks, enhanced certification and warranty requirements to ensure low in-use emissions, increased flexibility for manufacturers in certifying advanced innovative truck engine and vehicle systems, and California Phase 2 GHG requirements, which may be more stringent than federal Phase 2 requirements, depending on the stringency of the final federal rule. The Discussion Document also calls for CARB to petition U.S. EPA to develop mandatory, NOx standards (which is discussed in more detail later in this comment).

The CAA gives California independent authority to adopt its own heavy-duty vehicle and engine standards, which it has utilized on numerous occasions to achieve additional emission reductions as compared to the federal standards. However, the regulated industry has consistently preferred a single, national program, rather than a more stringent California-only standard. California recognizes this, and is committed to working with U.S. EPA and NHTSA to address heavy-duty truck NOx emissions. This is especially important for out of state trucks; of the one million heavy-duty vehicles that operate in California, approximately 60 percent of trucks operating in California were originally purchased in states outside of California. CARB is prepared to utilize its authority to develop California-only mandatory, lower NOx standards if U.S. EPA fails to take timely action in developing federal standards.

Although the NPRM claims some reductions in NOx emissions are expected due to the Phase 2 program (due to use of APUs instead of idling),⁷⁰ CARB staff believes these emission reductions are overstated. Because nearly all of today's engines already meet clean idle requirements which limit NOx at idle to 30 grams/hour, switching to APU use is not expected to appreciably reduce NOx emissions and hence Phase 2 is not expected to significantly reduce tailpipe NOx emissions. Instead, because the NPRM does not incorporate CARB's recommendation for a supplemental NOx check for heavy-duty hybrids⁷¹ and proposes overly broad use of dirtier off-road engines in on-road vehicles, CARB staff instead is concerned that Phase 2 may result in overall NOx emissions to increase; recent work at NREL funded by CARB shows that heavy-duty

⁷⁰ Table VIII-20 in the Phase 2 Proposed Rule estimates 426,610 tons/yr downstream NOx reductions nationwide in 2050 due to Phase 2.

⁷¹ See <http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2014-0827-0036> for our comment regarding the need for a supplemental NOx check for hybrids.

hybrids can have NOx emissions more than three times those of comparable diesel vehicles.⁷²

As CARB staff has worked with U.S. EPA and NHTSA over the past several years on the Phase 2 program, we have repeatedly requested that U.S. EPA and NHTSA consider opportunities in the Phase 2 rulemaking to encourage further NOx emission reductions, prevent inadvertent NOx increases, and lay the groundwork for swift federal action to reduce NOx from heavy-duty trucks. However, these requests have not been addressed in the NPRM.

CARB staff was anticipating the inclusion in the NPRM of a discussion on the need for federal action on future NOx control and a commitment from U.S. EPA and NHTSA to begin development on lower, mandatory NOx standards for heavy-duty engines and vehicles. Unfortunately, the proposal included no such commitment.

In parallel with completion of the Phase 2 rulemaking, CARB staff recommends that U.S. EPA and NHTSA pursue a joint rulemaking effort to reduce the NOx emission standard for heavy-duty engine certification. The current emission standards for heavy-duty engines, the 2010 emission standards, were promulgated in 2001, which was 14 years ago. Since that time, engine manufacturers have made significant progress in improving the conversion efficiency of NO_x aftertreatment technologies and in reducing emissions from engines. The next phase of NO_x emission standards may be achieved with advanced engine controls and advanced aftertreatment technologies, leading to a significantly lower NOx emission standard than the 2010 standards.⁷³

CARB staff will begin development of lower, mandatory NOx engine standards in 2017, and also plans to petition U.S. EPA to establish lower, federal NOx engine standards. If U.S. EPA fails to initiate its rulemaking by 2017, CARB will continue with its efforts to establish a California-only standard. A lower NOx standard that reduces emissions from all trucks operating in California is critical to meeting 2031 air quality goals.

⁷² (NREL, 2015b) National Renewable Energy Laboratory, "Data Collection, Testing, and Analysis of Hybrid Electric Trucks and Buses Operating in California Fleets - Final Report," June 2015, <<http://www.nrel.gov/docs/fy15osti/62009.pdf>>.

⁷³ (CARB, 2015e) California Air Resources Board, "Draft Technology Assessment: Lower NOx Heavy-Duty Diesel Engines," September 2015, <http://www.arb.ca.gov/msprog/tech/techreport/diesel_tech_report.pdf>.

CARB staff has already begun work to lay the technical foundation for a lower NO_x emission standard for new heavy-duty engines. CARB has funded SwRI for a \$1.6 million project to investigate advanced technologies to reduce NO_x emissions by 90 percent from today's U.S. EPA and CARB heavy-duty engine standards. The engine technology package must continue to meet all applicable standards for hydrocarbons, carbon monoxide, and PM, including, and GHG emissions.

In this research contract, SwRI is evaluating enhanced aftertreatment technology choices, aftertreatment configurations, catalyst optimizations, urea dosing strategies, engine tuning, and engine management practices for two heavy-duty engines: one natural gas engine with a three-way catalyst; and one diesel engine with a DPF and SCR. The target NO_x emission rate for this project over the heavy-duty FTP is 0.02 g/bhp-hr.

SwRI will characterize the emission performance of the two stock engines using procedures following Title 40, Code of Federal Regulations, Part 1065, determine stock engine characteristics for cold starts, hot starts, normal operation, and low-load-low-temperature operation, and will determine possible engine control strategies. Based on the engine performance and possible engine control strategies, SwRI will select candidate aftertreatment technologies and engine control strategies for screening. The candidate emission reduction strategies will be screened using low-cost exhaust emission sources and test benches. The best performing technology packages and strategies will be identified and their performance will be measured on engine dynamometer over the heavy-duty FTP, World Harmonized Transient Cycle, ramped mode cycle, extended Idle, and three low-load-low-temperature cycles derived from the Orange County Transit Authority bus cycle, New York bus cycle, and CARB Creep cycle.

The screening process is currently progressing and it is showing promising results towards achieving the 0.02 g/bhp-hour NO_x for both natural gas and diesel engines.⁷⁴ This research contract is expected to be completed by the end of 2016.

To further reduce NO_x emissions, CARB also adopted optional low-NO_x standards in late 2013 that are 50 percent, 75 percent, and 90 percent lower than the current NO_x standard of 0.20 g/bhp-hr. The optional low-NO_x standards were developed to encourage engine manufacturers to develop new technologies and also to provide them

⁷⁴ See Attachment 8 for Southwest Research Institute, ARB Low NO_x Program Advisory Group Update, August 2015; and see <http://www.arb.ca.gov/research/veh-emissions/low-nox/low-nox.htm> for more information of this study.

with a mechanism to optionally certify engines to lower NO_x standards. Certification to these lower optional standards could enable trucks equipped with certified lower NO_x engines to become eligible for incentive funding. CARB's incentive funding programs have been updated to include incentives to encourage the development and certification of lower NO_x heavy-duty engines. In response to these actions, Cummins Westport Inc. (CWI) announced in May 2015 that it achieved a 0.02 g/bhp-hr NO_x emission level on its 8.9 liter ISL G spark-ignited natural gas engine, and was starting field testing in California. In September 2015, CARB issued Executive Orders for the 8.9 liter ISL engine certified to the 0.02 g/bhp-hr optional NO_x standard for use in medium heavy-duty and urban bus applications.

As discussed previously on California's need for GHG reductions, another consideration for the adoption of lower NO_x emission standards is its simultaneous implementation with the proposed Phase 2 GHG standards. The proposed Phase 2 Alternative 3 does not become fully implemented until the 2027 MY. A more stringent Alternative 4 would be fully implemented by the 2024 MY, which would allow earlier action on NO_x, without the need for manufacturers to implement both rulemakings simultaneously. As a result, the need for timely NO_x reductions lends additional support for U.S. EPA and NHTSA to choose Alternative 4 over Alternative 3.

In light of California's and certain other states' pressing needs for NO_x emission reductions to achieve the proposed more stringent NAAQS standards, CARB staff urges U.S. EPA and NHTSA to thoroughly describe the need for lower federal NO_x emission standards for new heavy-duty engines in the Phase 2 rulemaking package and to initiate a parallel effort to adopt such standards as quickly as possible.

PM

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40211, 40213-40124, 40126-40127, 40219, 40223-40224, 40416-40418

Comment – Need to control PM emissions from APUs to prevent Phase 2 causing PM increases

The NPRM requests comment on the need and appropriateness to further reduce PM emissions from APUs. The Phase 1 regulations included provisions to use extended idle reduction technologies as a compliance path to meet the GHG standards for

sleeper cab tractors. In developing the Phase 1 GHG standards, U.S. EPA and NHTSA assumed that manufacturers would install diesel-fueled APUs on all of the sleeper cab tractors to meet the Phase 1 GHG standards. Because the federal emission standards for APUs are less stringent than those for on-road heavy-duty engines, it was estimated that compliance with the Phase 1 standards using APUs as a compliance option would increase PM emissions by approximately 8 percent in 2030. Concerned about this potential increase in PM emissions, CARB and other stakeholders recommended that U.S. EPA and NHTSA regulate PM emissions from diesel-fueled APUs in the Phase 1 rulemaking.⁷⁵ However, U.S. EPA and NHTSA chose not to take action on APUs because such action was outside the scope of the Phase 1 rulemaking.

To date, CARB staff is not aware of any tractor manufacturers using APUs as a technology option to meet the Phase 1 GHG standards. Nonetheless, U.S. EPA and NHTSA are proposing the use of extended idle reduction technologies as a compliance option to meet the proposed Phase 2 standards. Moreover, like in Phase 1, the proposed rule does not require PM control from APUs. Thus, U.S. EPA and NHTSA's inventory estimates project that compliance with the Phase 2 standards would increase federal PM emissions from heavy-duty trucks by approximately 10 percent in 2050 mainly due to PM increases from APUs. The NPRM requests comments on the need and appropriateness to further control PM emissions from APUs, taking into account cost, safety, noise, and energy factors. Although, as noted above, CARB staff believes the projection of APU use in the NPRM may be too high and hence the actual PM increases may be lower than projected, CARB staff is concerned about any such PM increases and believes they should be eliminated.

In the Phase 2 NPRM, U.S. EPA and NHTSA rightly note that CARB, recognizing the excess PM emissions from APUs, requires APUs that operate in California to control PM emissions by either installing a DPF that is Level 3 (85 percent filtration efficiency) verified or must have the APU exhaust routed to the truck's exhaust system upstream of the truck's DPF. To comply with California's requirements, several APU and DPF manufacturers have verified Level 3 DPFs for use with APUs. Commercially available today, verified DPFs for use with APUs include Thermo King's Electric Regenerative DPF for use with their TriPac APU, Impco Ecotrans Technologies' ClearSky DPF for use with their Comfort Pro APU, and Proventia's Electronically Heated DPF for use with the

⁷⁵See <http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2010-0162-2354> for Phase 1 Comment submitted CARB and for comments by others "EPA Response to Comments, EPA-420-R-11-004, August 2011, Pages 136-140 <http://www.epa.gov/otaq/climate/regs-heavy-duty.htm>.

Thermo King TriPac APU. APUs are typically equipped with diesel-fueled off-road engines with power ratings less than 25 hp. The verified DPFs are available as factory installed on APUs or as APU retrofits. As of December 31, 2014, approximately 7,000 APUs equipped with CARB verified DPFs have been sold nationwide. These technologies have been in use now for the last 5 to 7 years and during this period, CARB has not received any complaints from end users related to DPF performance, safety, reliability, or noise issues that would make these devices impractical to use on APUs. Thus, there are no technical feasibility issues that would hinder U.S. EPA and NHTSA from requiring additional PM controls on APUs.

Based on price quotes provided by the three manufacturers, the average incremental cost of a verified DPF for an APU is approximately \$2,500. This cost estimate for an APU engine rated at less than 25 hp is relatively high compared to the \$580 DPF incremental cost estimate for a 150 hp off-road engine that U.S. EPA cites in the NPRM. The higher cost quoted by the three manufacturers for these DPFs is due to the low sales volume of APUs with verified DPFs since the requirements only apply to California as opposed to being a nationwide requirement. Also, since DPFs are not required on APUs installed on trucks equipped with 2006 or older MY engines, California does not prohibit the purchase and installation of non-DPF equipped APUs. It only restricts their operation within the state if installed on trucks equipped with 2007 or subsequent MY engines. Thus, many trucking companies that purchase APUs do not purchase the DPF. CARB staff expects if the requirements are applied nationally, the sales volume will increase and consequently the incremental cost will drop significantly, most likely to levels even below the \$580 DPF cost estimate for a 150 hp engine that U.S. EPA and NHTSA cite in the NPRM.

In 1998, CARB identified diesel PM as a toxic air contaminant. In 2012, the International Agency for Research on Cancer, which is part of the World Health Organization, also classified diesel engine exhaust as carcinogenic to humans.⁷⁶ Numerous studies have shown diesel PM's adverse effects on human respiratory and cardiovascular systems and its contribution to increased morbidity and mortality. Further details regarding diesel PM health effects is available on CARB's website at <http://www.arb.ca.gov/research/diesel/diesel-health.htm>.

The health risk posed by diesel PM is one of the largest public health problems tackled by CARB in recent decades, and even after an extensive control program including a

⁷⁶ IARC: Diesel Engine Exhaust Carcinogenic, http://www.iarc.fr/en/media-centre/pr/2012/pdfs/pr213_E.pdf

series of air toxic control measures in California (see for example the mobile source measures listed at <http://www.arb.ca.gov/toxics/atcm/atcm.htm>), diesel PM remains responsible for 60 percent of the known risk for air contaminants. Hence, controlling diesel PM remains a huge priority for CARB. Diesel PM also contains black carbon, which is a powerful short-lived climate pollutant, so even beyond the toxicity reasons for controlling diesel PM, there are climate reasons as well. The PM 2.5 increases projected for the Phase 2 regulation are very significant – an increase of 1,631 tons and 2,257 tons of nationwide PM 2.5 in 2035 and 2050,⁷⁷ respectively. To put those emission increases in perspective, they are greater than the entire projected reductions of 1,058 tons statewide diesel PM in 2023 from CARB's Truck and Bus Regulation.⁷⁸ While this issue does not significantly affect California because CARB already requires DPFs on APUs, CARB staff supports adopting similar requirements at the federal level concurrent with the Phase 2 program.

Overall, CARB staff strongly urges U.S. EPA and NHTSA to regulate PM emissions from APUs in this rulemaking since the technology is commercially available, trucking businesses are currently using it, and it is cost-effective. It does not make sense to pursue CO₂ emissions reductions at the expense of increased toxic diesel PM emissions.

⁷⁷ Phase 2 Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium and Heavy-Duty Engines and Vehicles; Notice of Proposed Rulemaking; 40 CFR 1036; 40 CFR 1037; 40 CFR 86; <http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2014-0827-0002>.

⁷⁸ (CARB, 2014d) California Air Resources Board, "Staff Report: Initial Statement of Reasons for Proposed Rulemaking – Proposed Amendments to the Truck and Bus Regulation," page 33, March 2014, <<http://www.arb.ca.gov/regact/2014/truckbus14/tb14isor.pdf>>.

Comments on Estimated Cost, Economic, and Other Impacts

Comment on Topic Where NPRM Requests Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40434-40489

Comment – Scope of costs and benefits

The NPRM requests comment on whether any costs or benefits are omitted from the analysis. CARB staff supports the inclusion of all quantifiable impacts of reductions in GHG and non-GHG pollutants. Specifically, CARB staff suggests the inclusion of ecosystem benefits from reduced non-GHG pollutants including those to crops as outlined in Murphy et al. (1999). Changes in fugitive emissions from altered driving patterns on paved roads may also impact agriculture and ecosystem health. These impacts should be included in the analysis to the extent that they can be quantified.⁷⁹

Comment on Topic Where NPRM Requests Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40434-40438

Comment – Energy efficiency gap

The NPRM requests comment on the slow adoption of cost-effective technologies for reducing fuel consumption. CARB staff supports the hypothesis that the end-users are not adopting readily available, cost-effective energy efficiency technologies because they do not have full information regarding their costs and benefits (this economic situation is known as the “energy efficiency gap” or “energy paradox”). CARB staff also recognizes that in the highly diverse and specialized heavy-duty vehicle sector, no manufacturer wants to be the first to absorb high upfront research and development costs for new technologies that other manufacturers will subsequently utilize at lower costs (the “first-mover disadvantage”). Overall, CARB staff agrees these issues necessitate further research in order to better understand the heavy-duty vehicle sector and to identify potential strategies and mechanisms to speed the adoption of fuel efficient technologies.

⁷⁹ (Murphy et al., 1999) Murphy, J.J., M.A. Delucchi, D.R. McCubbin, and H.J. Kim, “The cost of crop damage caused by ozone air pollution from motor vehicles,” Journal of Environmental Management: 55, 273-289.

Comment on Topic Where NPRM Requests Comment

Affected document(s): Phase 2 Proposed Rules; RIA

Affected pages: NPRM 40446-40453; RIA 2-199 to 2-284

Comment – Maintenance costs

The NPRM requests comment on the estimation of maintenance costs for hybrid electric vehicles. CARB staff supports the inclusion of all maintenance costs across vehicle technologies. Maintenance costs of hybrid buses⁸⁰ and small fleets of hybrid delivery vans⁸¹ have been estimated as part of several recent research projects. In addition, changes in electricity expenditures associated with BEVs should also be included in the estimation of fuel costs for advanced technology vehicles. In other words, the costs and savings resulting from changes in electricity consumption, not just savings based on the decreased use of liquid fuels, must be incorporated into the fuel cost savings calculation.

Comment on Topic Where NPRM Requests Comment

Affected document(s): Phase 2 Proposed Rules; RIA

Affected pages: NPRM 40438-40453; RIA 2-191 to 2-199,

Comment – Indirect cost estimates

The NPRM requests comment on the estimation of indirect costs. CARB staff supports the use of indirect cost multipliers over retail price equivalent multipliers to capture the difference in research costs associated with varying technology complexities.

⁸⁰ (Callaghan and Lynch, 2005) Callaghan, L. and Lynch, S., "Analysis of electric drive technologies for transit applications: battery-electric, hybrid-electric, and fuel cells. U.S. Department of Transportation," Final Report: FTA-MA-26-7100-05.1, 1-54.

⁸¹ (Lammert, 2009) Lammert, M, "Twelve-Month evaluation of UPS diesel hybrid electric delivery vans," NREL Technical Report: NREL/TP-540-44134, 1-38.

Comment on Topic Where NPRM Requests Comment

Affected document(s): Phase 2 Proposed Rules RIA

Affected pages: 40448-40453; RIA 8-10 to 8-114

Comment – Rebound effect

The NPRM requests comment on the assumptions related to the rebound effect for heavy-duty vehicles. CARB staff believes further research is needed in this area. Emerging research from Winebreak et al. (2015) on fuel price elasticity in the U.S. combination trucking sector suggests fuel price inelasticity of demand for vehicles miles traveled and fuel consumption.⁸² This result implies that existing estimates of the rebound effect in the combination trucking sector could be overstated and calls for additional analysis. CARB staff suggests that, when feasible, short-run and long-run rebound effects should be estimated separately as research suggests the response to changes in efficiency varies over time.⁸³

In addition, CARB staff recommends additional research on the indirect and economy-wide portions of the rebound effect. Freight system interactions, fuel surcharges, and changes in capacity may impact the direct rebound effect in the heavy-duty sector, resulting in compensating changes outside of fuel consumption.⁸⁴ The price elasticity of energy demand may be preferred over the use of the price elasticity of VMT in the heavy-duty sector.

The RIA cites Guerrero (2014), which simulates the California freight network and concludes that the rebound effect could offset 40 to 50 percent of vehicle efficiency emission reductions.⁸⁵ CARB staff does not support the findings of Guerrero (2014) in

⁸² (Winebreak et al., 2015) Winebreak, J. J., Green, E.H, Comer, B., Li, C., Froman, S., and Shelby,M., "Fuel price elasticities in the U.S. combination trucking sector," Transportation Research Part D: 38,166-177.

⁸³ (Dahl, 2012) Dahl, C.A., "Measuring global gasoline and diesel price and income elasticities," Energy Policy: 41, 2-13.

(De Borger and Mulalic, 2012) De Borger, B., Mulalic, I., "The determinants of fuel use in the trucking industry – volume, fleet characteristics and the rebound effect," Transportation Policy: 24, 284-295.

(Winebreak et al., 2012) Winebreak, J.J, Green, E.H., Comer, B., Froman, S., "Estimating the direct rebound effect for on-road freight transportation," Energy Policy: 48. 252-259.

⁸⁴ (Winebreak et al., 2015) Winebreak, J. J., Green, E.H, Comer, B., Li, C., Froman, S., and Shelby,M., "Fuel price elasticities in the U.S. combination trucking sector," Transportation Research Part D: 38,166-177.

⁸⁵ (Guerrero, 2014) Guerrero, S.E., "Modeling fuel saving investments and fleet management in the trucking industry: the impact of shipment performance on GHG emissions," Transportation Research Part E: 68, 178-196.

assessing the relationship between fuel saving technology and the management of vehicle fleets. Guerrero (2014) estimates the rebound effect of long-haul trips only, which is not representative of the entire heavy-duty vehicle fleet. The analysis fails to account for existing market failures that currently are impediments to the adoption of cost-effective fuel saving technology, resulting in potential overestimation of the rebound effect with optimal adoption of fuel saving technology. Guerrero (2014) is based on a commodity flow data and not heavy-duty vehicle activity, which is more representative of the sector and utilized in Winebreak (2015).

CARB staff appreciates the use of sensitivity analysis in regards to the rebound effect and suggests additional sensitivity cases to incorporate varying discount rates, and additional estimates of indirect and economy-wide rebound, when feasible.

Comment on Topic Where NPRM Requests Comment

Affected document(s): Phase 2 Proposed Rules RIA

Affected pages: 40457-40470; RIA-8-1 to 8-144

Comment – Social cost of non-CO₂ GHGs

The NPRM requests comment on the inclusion of non-CO₂ GHGs in the estimated benefits of the proposed rulemaking. CARB staff supports the use of directly modeled peer-reviewed estimates of the social cost of all GHGs over the GWP approach but is concerned about consistency if not all GHGs are directly modelled. Currently, there is no proposed research to directly model the social cost of HFC-134a for example, which will result in biased estimation as the GWP-based approximation has been shown to underestimate climate benefits relative to direct modeling. CARB staff suggests that there is a need for additional research on the social cost of non-CO₂ GHGs such as black carbon including harmonization with the social cost of CO₂.

Comment on Topic Where NPRM Requests Comment**Affected document(s): RIA****Affected pages: RIA 8-1 to 8-144****Comment – Economic value of reduction in criteria pollutants**

The NPRM requests comment on the economic valuation of reductions in criteria pollutants resulting from the proposed rulemaking. CARB staff supports the inclusion of criteria pollutant emission reductions as well as consideration of the impacts on toxic air contaminants such as diesel PM. CARB staff also suggests the impact of local pollutants be based on source-specific estimates of marginal damage.⁸⁶ CARB staff supports continued full-scale air quality modeling for the final rulemaking to capture local variability.

Comment on Topic Where NPRM Requests Comment**Affected document(s): Phase 2 Proposed RIA****Affected pages: 40465-40472; RIA 8-72 to 8-87****Comment – Energy security analysis**

The NPRM requests comment on the estimation of energy security benefits of the proposed rulemaking. CARB staff supports the estimation of energy security benefits and suggests that the benefit to national defense be included in the estimation. The National Research Council (2013) estimates that inclusion of the impact to national defense could impact the estimation of energy security benefit by 25 percent. CARB staff recommends additional analysis to determine methodologies to incorporate the impact of national defense in the analysis of energy security.⁸⁷

⁸⁶ (Muller and Mendelsohn, 2009) Muller, N.Z. and Mendelsohn, R., "Efficient pollution regulation: getting the prices right," American Economic Review: 99(5), 1714-39.

(Muller and Mendelsohn, 2012) Muller, N.Z. and Mendelsohn, R., "Efficient pollution regulation: getting the prices right: reply," American Economic Review: 102(1), 608-12.

⁸⁷ (NAS, 2013) National Research Council, "Transitions to alternative vehicles and fuels," The National Academies Press: Washington, D.C.

Comment on Topic Where NPRM Requests Comment

Affected document(s): Phase 2 Proposed Rules; RIA

Affected pages: NPRM 40472-40486; RIA 8-61 to 8-89

Comment – Accidents, congestion, and noise

The NPRM requests comment on the input metrics used in the analysis of accidents, congestion, and noise. CARB staff supports the holistic inclusion of these inputs and suggests that the inputs related to congestion, accidents, and noise be consistent with any anticipated changes in vehicle usage, including VMT, mode switching, and route modification, due to the rebound effect of the proposed rulemaking. Any modification to the rebound effect from continued research should be reflected in the estimation of accidents, congestion, noise, and increased travel.

Comment on Topic Where NPRM Requests Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40155

Comment – Lead time

The NPRM requests comment on the lead time for the proposed rulemaking and market disruption. CARB staff suggests that U.S. EPA and NHTSA conduct additional research on the market impact of the proposed rulemaking, including an ex post (retrospective) analysis of the market impacts resulting from existing GHG and criteria pollutant engine and vehicle regulations.

Comment on Topic Where NPRM Requests Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40161

Comment – Small business impacts

The NPRM requests comment on additional provisions for small businesses. In California, small businesses play an important role in the economic vitality of the state, representing 3.5 million businesses and 50 percent of the private-sector labor force. CARB staff supports additional research on the impact of the proposed rulemaking on small businesses, specifically in regards to potential impacts on employment.

Comment on Definitions and Miscellaneous Topics

Support Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40558, 40573, 40602

Comment – CARB Staff Supports Improved Definitions

The CARB staff supports U.S. EPA and NHTSA's proposed addition of, and clarification to, definitions throughout the proposed language, specifically in 40 CFR 86.1803-01, the addition of definitions for a cab-complete vehicle, an incomplete vehicle, transmission type, the addition of automated manual and continuously variable transmissions to the list of basic transmission types (page 40573 of the NPRM). Also, in 40 CFR 1036.801 (page 40602 of the NPRM), CARB staff supports the clarification that a dual fuel engine can include 2 or more fuels as long as it does not operate on a continuous mixture of those 2+ fuels, and the expanded definition of manufacturer to include those who assemble an engine, vehicle, or piece of equipment.

Oppose/Requested Change Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40602, 40661

Comment – Definitions

The definition of compression ignition in 40 CFR 1036.801 has been expanded to include gas turbines and "certain" spark-ignited engines. CARB staff believes it would be appropriate to either state here which spark-ignited engines are to be treated like compression ignition and subject to the requirements of compression ignition or to provide a reference to the appropriate section so describing, which would appear to be 40 CFR 1036.140. 40 CFR 1036.140 (a) states that medium heavy-duty and heavy heavy-duty engines that do not run on gasoline must meet compression ignition standards, even if they are spark-ignited engines. Gasoline-fueled (including dual fuel) medium heavy-duty and heavy heavy-duty meet spark-ignited standards. Light heavy-duty spark-ignited engines meet spark-ignited requirements regardless of fuel. Thus, CARB staff suggests the following modification to the definition of compression ignition in 40 CFR 1036.801:

Compression ignition means relating to a type of reciprocating, internal-combustion engine that is not a spark-ignited engine. Note that 40 CFR 1036.1 also deems gas turbine engines and other engines to be compression-ignition engines. Note also that certain spark-ignited engines are subject to the requirements for compression-ignition engines, specifically, per 40 CFR 1036.140(a), medium heavy-duty and heavy heavy-duty engines that do not operate on gasoline, even if they are spark-ignited engines.

The definition of basic vehicle frontal area in 40 CFR 1037.801 (page 40661 of the NPRM) would be enhanced by an illustration. The language states that “basic vehicle frontal area means the area enclosed by the geometric projection of the basic vehicle along the longitudinal axis onto a plane perpendicular to the longitudinal axis of the vehicle, including tires but excluding mirrors and air reflectors.”

Support Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40553, 40559-40561, 40585, 40611, 40652-40654

Comment – Miscellaneous support

The CARB staff supports the addition of DPF filters to the list of items that require a regular maintenance interval of 50,000 miles/1500 hours (40 CFR 86.004-25 (b)(4)(i)).

The CARB staff supports the language added to 40 CFR 86.1819-14 clarifying that the CO₂ standards must be met over the full useful life. CARB staff supports the addition of language setting broad applicability and pulling out specific further requirements. This approach by U.S. EPA and NHTSA will close potential loopholes for engines/vehicles that are difficult to fit into existing language.

The CARB staff supports the lengthening of the useful lives of class 2b through 8 engines and vehicles to more properly reflect their actual use. For non-medium-duty passenger vehicle heavy-duty vehicles, the emissions standards in 40 CFR 86.1819 apply for the currently defined useful life of 11 years, 120,000 miles through MY 2020, then increase to 150,000 miles/15 years with MY 2021 and beyond. Under 40 CFR 1036.108 (d), a 150,000 mile/15 year useful life over which compliance must continue is also specified (page 40585 of the NPRM). CARB staff supports the increased useful life for vocational class 2b through 5 vehicles from 110,000 miles/10 years to 150,000 miles/15 years as specified in 40 CFR 1037.105 (e)(1).

The CARB staff supports the approach delineated in 40 CFR 1037.620-622 which defines the responsibility for each entity involved in an engine/vehicle with multiple manufacturers. This clearly defined approach will make it evident which party is responsible for every facet of the engine/vehicle.

Neutral/Provide Additional Information Comment

Affected document(s): Phase 2 Proposed Rules

Affected pages: 40610, 40654, 40587

Comment – Editorial corrections

CARB staff notes that while Table 2 in 40 CFR1037.105 (page 40610 of the NPRM) is correctly identified in paragraph 2, it appears that its title is incorrect. CARB staff believes that the table should be titled as shown in strike out and insertion below:

Section 1037.105 Exhaust emission standards for CO₂ for vocational vehicles (b)
(2) Model year 2024 through 2026 vehicles are subject to CO₂ standards
corresponding to the selected subcategories as shown in the following table:

TABLE 2 OF § 1037.105 – PHASE 2 CO₂ STANDARDS FOR MODEL YEAR
2024 ~~AND LATER~~ THROUGH 2026 VOCATIONAL VEHICLES

CARB staff further believes that 40 CFR1037.622 (page 40654 of the NPRM, paragraph (5)) should use “site” instead of “cite” (“[T]he secondary manufacturer must identify the regulatory ~~cite~~ site identifying the applicable exemption instead of a valid family name when ordering engines from the original vehicle manufacturer.”).

40 CFR1036.150 (e) Alternate phase-in standards (page 40587 of the NPRM) states “[w]here a manufacturer certifies all of its model year 2013 compression-ignition engines within a given primary intended service class to the applicable alternate standards of this paragraph (e), its compression ignition engines within that primary intended service class are subject to the standards of this paragraph (e) for model years 2013 through 2016.” Then follows an untitled table, the last line of which is labeled “Model Years 2016 and later”, and provides standards of 576 g/hp-hr for light heavy-duty and medium heavy-duty engines, and 555 g/hp-hr for heavy-duty diesel engines. CARB staff believes this last line of the table should be labeled “Model Years 2016 through 2020.” The presumably unintended implication in this table as written is that if a manufacturer follows this alternate phase-in schedule, the manufacturer may continue to certify engines to the same standard after 2016 and throughout Phase 2.

Requested Clarification**Affected document(s): Phase 2 Proposed Rules****Affected pages: 40161, 40285, 40545, 40563, 40586****Comment – Small Manufacturer Provisions**

Small manufacturers were exempt from Phase 1 GHG rules, but must comply with Phase 2, under a delayed schedule. The small manufacturer delays apply to engine manufacturers (page 40161 of the NPRM), trailer manufacturers (page 40285 of the NPRM), and small engine converters (page 40545 of the NPRM). Alternate fuel engines, defined as those fueled with any fuel other than gasoline, E85, or diesel, have an additional year to comply with each new standard. CARB staff supports the inclusion of small manufacturers into Phase 2 of the GHG regulations. CARB staff recommends clarification on whether this alternate fuel delay noted in 40 CFR1036.150 (d) and 86.1819 – 14 (j) (5) is in addition to the small manufacturer delay (resulting in a delay of up to 2 years for an alternative fuel engine manufactured by a small manufacturer), and whether the alternative fuel delay is available to manufacturers who are not small manufacturers.

Neutral/Provide Additional Info Comment**Affected document(s): Phase 2 Proposed Rules****Affected pages: 40175****Comment - Manufacturer data submittal**

The NPRM discusses ways to streamline the submittal of manufacturer data, avoid unnecessary duplication, and allow timely access to the data by both U.S. EPA and NHTSA, for example by allowing manufacturers to submit compliance data to U.S. EPA's VERIFY database system for use by both U.S. EPA and NHTSA. When CARB staff proposes its California's Phase 2 regulations, we will seek ways to similarly allow CARB staff timely access to Phase 2 compliance data, potentially by requiring all manufacturers who wish to certify in California to submit data to CARB simultaneous with submittal to U.S. EPA and NHTSA. CARB staff looks forward to finding the most efficient way to allow this access.

To: Dennis, Allison[Dennis.Allison@epa.gov]
Cc: Stewart, Lori[Stewart.Lori@epa.gov]; McCabe, Janet[McCabe.Janet@epa.gov]
From: Atkinson, Emily
Sent: Fri 10/9/2015 5:02:51 PM
Subject: FW: Invitation: OTC Fall Meeting - November 5, 2015
Signed ltr to Gina032.pdf
OTC 2015 Fall Meeting Agenda v1.doc

David Foerter would like to have a conversation with you about EPA's participation in the upcoming OTC event. He can be reached at 202-508-3840 through his assistant, Kromeklia Bryant.

He just called to inquire about how to work Janet into their agenda so she could participate by phone either the evening of Wednesday, November 4 or early in the morning on Thursday, November 5. David is aware that Janet is booked both days, but would like to have another EPA representative participate.

Emily Atkinson
Staff Assistant

Immediate Office of the Acting Assistant Administrator
Office of Air and Radiation, USEPA
Room 5406B, 1200 Pennsylvania Avenue NW
Washington, DC 20460
Voice: 202-564-1850
Email: atkinson.emily@epa.gov

From: McCabe, Janet
Sent: Wednesday, September 16, 2015 7:28 PM
To: Dennis, Allison; Atkinson, Emily; Stewart, Lori
Subject: FW: Invitation: OTC Fall Meeting - November 5, 2015

This is the day of our retreat, so it's going to be tough, pretty impossible, for me to attend as usual.

From: Kromeklia Bryant [<mailto:kbryant@otcair.org>]
Sent: Wednesday, September 16, 2015 3:20 PM

To: Mccarthy, Gina

Cc: McCabe, Janet; scheduling; Dubin, Noah; Atkinson, Emily; Drinkard, Andrea; David Foerter

Subject: Invitation: OTC Fall Meeting - November 5, 2015

Dear Administrator McCarthy,

Please find attached a formal invitation to speak at the upcoming Fall meeting of the Ozone Transport Commission. The original letter should arrive in the next few days.

Sincerely,

Kromeklia Bryant

Office Manager

Ozone Transport Commission

444 North Capitol St., NW Suite 322

Washington, DC 20001

202-508-3840



September 16, 2015

The Honorable Gina McCarthy
U.S. Environmental Protection Agency
William Jefferson Clinton Building
1200 Pennsylvania Avenue, NW
Mail Code 1101A
Washington, DC 20460

Connecticut

Delaware

District of Columbia

Maine

Maryland

Massachusetts

New Hampshire

New Jersey

New York

Pennsylvania

Rhode Island

Vermont

Virginia

David C. Foerter
Executive Director

444 N. Capitol St. NW
Suite 322
Washington, DC 20001
(202) 508-3840
FAX (202) 508-3841
Email: ozone@otcair.org

Dear Administrator McCarthy:

The Ozone Transport Commission (OTC or Commission) and the Mid-Atlantic-Northeast Visibility Union (MANE-VU) are pleased to extend an invitation to you to speak at our Fall Meeting on November 5, 2015 at the Hilton Baltimore Hotel in Baltimore, Maryland. We have tentatively scheduled time for you to speak from 10:00 – 11:00 am, but we would be happy to accommodate a time that is workable for your schedule, and are prepared to adjust other sessions on the agenda as necessary.

We are also holding an Executive Session between the OTC member states and senior EPA managers from 8:00 am to 9:15 am the morning of November 5th, and are hoping you will join us for those discussions.

Given the anticipation of EPA issuing a revised ozone standard and the subsequent implementation of the revised standard, the Commission is very interested in hearing about how far we have come and how far we still need to go to provide the health protection afforded by the ozone standard and the Clean Air Act. As the fall meeting combines ozone transport and regional haze policy issues, the Commission is also interested in EPA's view of where we stand and how to make needed progress in achieving the region's air quality goals. The Commission is also interested in knowing EPA's goals and outlook for the future of the nation's air quality and how the Agency will move forward to continue to protect public health and the environment. We aim to understand how our states can more effectively work with EPA to realize its vision and understand how to connect our work toward a higher level of environmental stewardship and sustainability, to protect communities at risk, and promote the public trust.

A number of critical policy issues continue to face EPA, and the OTC states hope to discuss several of them during the Executive Session. Some of these issues include:

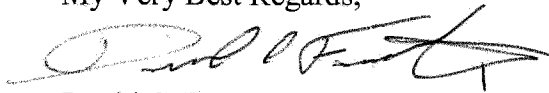
- Near and longer term strategies for ozone transport and broader cooperation to implement these strategies;
- EPA's plans to address mobile sources emissions beyond Tier 3 and the legacy and new fleet of light, medium and heavy-duty vehicles;
- Timely interstate transport and attainment planning under a revised 2015 ozone standard.

- Improving funding for achieving the goals of OTC, and Regional Planning Organizations, including for regional haze.

We know that there are many challenges as well as successes and look forward to continuing to work together to achieve needed air quality results.

Attached please find the draft agenda for this meeting. We appreciate your consideration of our invitation and look forward to a response at your earliest convenience. For more information about OTC or any questions about the OTC/MANE-VU Fall Meeting, please contact me at 202-508-3840 or via email at dfoerter@otcair.org.

My Very Best Regards,

A handwritten signature in black ink, appearing to read 'David C. Foerter', with a stylized flourish at the end.

David C. Foerter
Executive Director, OTC

cc: Janet McCabe, Acting Assistant Administrator EPA OAR

To: McCabe, Janet[McCabe.Janet@epa.gov]; Stewart, Lori[Stewart.Lori@epa.gov]
Cc: McMichael, Nate[McMichael.Nate@epa.gov]; Davis, Alison[Davis.Alison@epa.gov]; Purchia, Liz[Purchia.Liz@epa.gov]
From: Millett, John
Sent: Mon 10/5/2015 9:12:04 PM
Subject: WSJ Ozone response
[WSJ trimNM.docx](#)
[The Twilight Ozone mk.docx](#)

Hi Janet and Lori – Attached and pasted below are the WSJ editorial from Friday and a draft response. The response is at 250 words – about par.

The Twilight Ozone

The Grand Canyon may soon be an EPA ‘non-attainment’ area.

The Los Angeles city skyline with heavy smog. *Photo: mark ralston/Agence France-Presse/Getty Images*

Oct. 1, 2015 7:26 p.m. ET

The economic punishment from President Obama’s green agenda continued Tuesday as the Environmental Protection Agency issued a new regulation on ozone, among the most costly in U.S. history.

The final rule is wholly discretionary, and none other than President Obama overruled the EPA on ozone in 2011 in the name of “reducing regulatory burdens and regulatory uncertainty.” But that was headed into an election year, and Mr. Obama is making amends to burnish his eco-legacy.

Ozone in the ambient air can contribute to smog and respiratory ailments, but the U.S. has worked hard to control O₃ to the point of virtual nonexistence. “Back in 1979, Los Angeles still was so full of smog that there were days where people who were vulnerable just could not go outside,” Mr. Obama said in August. “And you fast-forward 30, 40 years later, and we solved those problems.”

Sure enough, the EPA’s latest measures show most of the U.S. is meeting the 2008 standards of ozone concentrations of 75 parts per billion (ppb) or less, except for pockets in Texas and the northeast. Only green-happy California is in “extreme non-attainment.”

The EPA is nonetheless lowering the standard to 70 ppb and the green lobby wanted 65 ppb or even 60 ppb. So while avoiding the worst-case scenario, the factories, utilities, refineries, farms, cars and trucks that produce the man-made emissions that cause ozone to form will need to

install expensive retrofits. New ones will be more expensive. The EPA estimated the 2011 draft proposal would cost the private economy anywhere from \$19 billion to \$90 billion.

All that money will buy few public health benefits. The EPA is attempting to drive ozone down to or below the “background” level where it naturally occurs from sources like forest fires and plant life. The Grand Canyon and Yellowstone will likely become “non-attainment areas” under the new standard.

Mr. Obama and the EPA invoke asthma attacks, and cleaning up dirty air in a city like Beijing would certainly help asthmatics—and everybody else. But the marginal gains decline sharply when moving from clean U.S. air to allegedly cleaner air.

To repeat for the benefit of the children, costly regulations like the ozone rule make it harder for the economy to expand. Dollars that a manufacturer spends to replace functional equipment can’t be spent to hire new workers or finance a new idea. California gets a special dispensation and more time to comply because the EPA deems its ozone problem is “uniquely stubborn,” but the state is also losing factories and businesses that will take the hit. Federal permits are much harder to obtain in “non-attainment areas.”

If you want to know why the U.S. has had 2% growth for so long, the EPA’s almost bimonthly release of regulations like the ozone rule—or the coal ash rule, the mercury rule, or the waters of the United States rule—is a big part of the explanation.

~~~~~

# Deliberative

# Deliberative

~~~~~  
John Millett

Director, OAR Communications

Desk: 202-564-2903

Cell: **Personal Privacy**

The Twilight Ozone

The Grand Canyon may soon be an EPA 'non-attainment' area.

<image001.jpg>

The Los Angeles city skyline with heavy smog. *Photo: mark ralston/Agence France-Presse/Getty Images*

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If you want to know why the U.S. has had 2% growth for so long, the EPA's almost bimonthly release of regulations like the ozone rule—or the coal ash rule, the mercury rule, or the waters of the United States rule—is a big part of the explanation.

To: McCabe, Janet[McCabe.Janet@epa.gov]; Giles-AA, Cynthia[Giles-AA.Cynthia@epa.gov]
Cc: Bunker, Byron[bunker.byron@epa.gov]; Grundler, Christopher[grundler.christopher@epa.gov]; Haman, Patricia[Haman.Patricia@epa.gov]; Levine, Carolyn[Levine.Carolyn@epa.gov]; Brooks, Phillip[Brooks.Phillip@epa.gov]; Belser, Evan[Belser.Evan@epa.gov]; Werner, Jacqueline[Werner.Jacqueline@epa.gov]; Vaught, Laura[Vaught.Laura@epa.gov]; Distefano, Nichole[DiStefano.Nichole@epa.gov]
From: Hengst, Benjamin
Sent: Sun 10/4/2015 7:32:51 PM
Subject: Draft statement for Thursday's VW hearing
[OAR+OECA VW hearing testimony v2 long.docx](#)
[OAR+OECA VW hearing testimony v2 short.docx](#)

Hi Janet, Cynthia,

Attached is a draft of the statement for Thursday's hearing. This version reflects one round of review by various staff/managers in OECA and OTAQ.

I've attached a short and long version of the statement. OCIR is encouraging us to keep the oral and written statements identical. The short version is just under 800 words, which we may want to cut even further to make sure it can be read aloud in 5 minutes. Please begin by reviewing the short version. I've attached the long version (around 1100 words) in case you'd like to see what I cut for brevity's sake.

Timing: OCIR needs to send this to OMB tomorrow morning so it can be delivered to the Committee Tuesday morning. I'll let OCIR weigh in if I've missed anything.

Thanks,

Ben

To: McCabe, Janet[McCabe.Janet@epa.gov]
Cc: Etzel, Ruth[Etzel.Ruth@epa.gov]; Dunham, Sarah[Dunham.Sarah@epa.gov]; Atkinson, Emily[Atkinson.Emily@epa.gov]; Dennis, Allison[Dennis.Allison@epa.gov]
From: Stewart, Lori
Sent: Sun 10/4/2015 4:49:25 PM
Subject: Re: Invitation to meeting of the President's Task Force on Environmental Health Risks and Safety Risks to Children - October 14 at 2 - 3 pm

Sure, will do.

Sent from my iPhone

On Oct 4, 2015, at 11:24 AM, McCabe, Janet <McCabe.Janet@epa.gov> wrote:

Thanks for asking Ruth, this would be great. It would likely be someone from Sarah Dunham's office. Sarah, can you think about who might be right for this event and connect with Ruth?

And Ruth, I'm really bummed, but I'll be in New Orleans tomorrow so won't be able to attend the kick off of Children's Health month. I know I've got a lot of travel already for October BUT, it'd be great to see if there's anything I can be doing to promote our Children's health messages while I'm on the road and/or add any other events.

I'm copying Allison, who helps keep my speeches organized and Lori Stewart, my Chief of Staff. Can you guys please connect with Ruth and/or her staff to see about integrating CH messages into my talkers and to see if they have any suggestions for additional events I could do while I'm on the road this month? (An example of the former would be my upcoming speech for the Indoor Air folks--there's definitely room for a CH message there).

Thanks!

From: Etzel, Ruth
Sent: Friday, October 2, 2015 5:13 PM
To: McCabe, Janet
Cc: Atkinson, Emily
Subject: Invitation to meeting of the President's Task Force on Environmental Health Risks and

Safety Risks to Children - October 14 at 2 - 3 pm

Hi Janet,

Would you be able to suggest someone from your office who might represent you at the meeting on October 14? The Administrator and the Secretary of HHS are co-Chairing this meeting, which is designed to renew the federal commitment to protecting children from environmental health and safety risks. The President's Task Force on Environmental Health Risks and Safety Risks to Children was initially formed by President Clinton in 1997 to help identify priority issues of environmental health and safety risks to children that would be best addressed through interagency efforts). See:

<http://www2.epa.gov/children/presidents-task-force-environmental-health-and-safety-risks-children#taskforcemembers>

I would like to invite someone of your choosing to speak for 3 minutes about the Climate and Health Assessment Report. I will be happy to sit down and provide a full briefing to whoever you designate.

Thanks for considering this!

Best,

Ruth

From: Atkinson, Emily

Sent: Thursday, October 01, 2015 8:17 AM

To: McCabe, Janet; Etzel, Ruth

Subject: RE: Invitation to Children's Health Month Open House - October 5 at 10:00 in the Green Room

Hi Ruth,

Unfortunately Janet will be in Chicago on Wednesday, October 14 and does not return to DC until about 6pm.

Emily Atkinson
Staff Assistant

Immediate Office of the Acting Assistant Administrator
Office of Air and Radiation, USEPA
Room 5406B, 1200 Pennsylvania Avenue NW
Washington, DC 20460
Voice: 202-564-1850
Email: atkinson.emily@epa.gov

From: McCabe, Janet
Sent: Thursday, October 01, 2015 8:09 AM
To: Etzel, Ruth
Cc: Atkinson, Emily
Subject: RE: Invitation to Children's Health Month Open House - October 5 at 10:00 in the Green Room

Thanks, Ruth.

I'd love to come if I can.

From: Etzel, Ruth
Sent: Thursday, October 01, 2015 8:08 AM
To: McCabe, Janet
Cc: Burke, Thomas
Subject: RE: Invitation to Children's Health Month Open House - October 5 at 10:00 in the Green Room

Hi Janet,

Thanks for the kind invitation. I will try to come over if my 10:00 meeting ends in time.
Congratulations on this major feat!

I think Matthew Davis on my staff may try to join me.

By the way, I want to invite you to join us on October 14 for a meeting of the President's Task Force on Environmental Health Risks and Safety Risks to Children. The meeting is at 2 – 3 pm at HHS and I will fill you in on the details after today's events are over.

Best,

Ruth

From: McCabe, Janet
Sent: Wednesday, September 30, 2015 8:00 PM
To: Etzel, Ruth; Burke, Thomas
Subject: RE: Invitation to Children's Health Month Open House - October 5 at 10:00 in the Green Room

Sounds great, Ruth!

And, you two, I wanted to invite you to come to watch Gina sign the ozone rule tomorrow if you're free. We're going to be gathering in her office at around 10:30. You and your relevant staff more than welcome!

From: Etzel, Ruth
Sent: Tuesday, September 29, 2015 5:34 PM
To: Assistant Administrators; Deputy Associate Administrators; AO Career SES
Cc: Reeder, John; Ali, Mustafa; Tejada, Matthew; Scheraga, Joel; Grevatt, Peter; Mosby, Jackie
Subject: Invitation to Children's Health Month Open House - October 5 at 10:00 in the Green Room

<image001.jpg>

Children's Health Month Open House

Monday, October 5, 2015, 10:00 am – 11:30 am

Green Room

October is Children's Health Month - Join Administrator Gina McCarthy and the Office of Children's Health Protection (OCHP) as we celebrate 20 years of children's health accomplishments since EPA's 1995 Policy on Evaluating Health Risks to Children. On October 5, 2015, OCHP will be hosting a Children's Health Open House in the Green Room. All HQ managers, employees, and staff are invited to attend this exciting event and learn more about the great work being done across the Agency to protect our nation's children. Attendees can take advantage of this unique opportunity to:

- Learn more about how Program Offices and Regions are implementing the Strategy for Protecting Children's Environmental Health
- Share success stories and best practices around children's health initiatives
- Explore new ways to incorporate children's health in our daily work

Help OCHP kick off Children's Health Month by strengthening the Agency's commitment towards protecting children's health. We look forward to your attendance on Monday, October 5th, from 10:00 am - 11:30 am in the Green Room. The Administrator is scheduled to speak between 10:15 am and 10:45 am.

Feel free to forward this invite to others at headquarters.

For questions about this event, please contact Alison Kukla, 202-564-0104, or via email at kukla.alison@epa.gov.

Ruth A. Etzel, MD, PhD

Director

Office of Children's Health Protection

U.S. Environmental Protection Agency

Room 1144 EPA West Building

Washington, DC 20460

To: McCabe, Janet[McCabe.Janet@epa.gov]
Cc: Atkinson, Emily[Atkinson.Emily@epa.gov]
From: Etzel, Ruth
Sent: Fri 10/2/2015 9:13:04 PM
Subject: Invitation to meeting of the President's Task Force on Environmental Health Risks and Safety Risks to Children - October 14 at 2 - 3 pm

Hi Janet,

Would you be able to suggest someone from your office who might represent you at the meeting on October 14? The Administrator and the Secretary of HHS are co-Chairing this meeting, which is designed to renew the federal commitment to protecting children from environmental health and safety risks. The President's Task Force on Environmental Health Risks and Safety Risks to Children was initially formed by President Clinton in 1997 to help identify priority issues of environmental health and safety risks to children that would be best addressed through interagency efforts). See:

<http://www2.epa.gov/children/presidents-task-force-environmental-health-and-safety-risks-children#taskforcemembers>

I would like to invite someone of your choosing to speak for 3 minutes about the Climate and Health Assessment Report. I will be happy to sit down and provide a full briefing to whoever you designate.

Thanks for considering this!

Best,

Ruth

From: Atkinson, Emily
Sent: Thursday, October 01, 2015 8:17 AM
To: McCabe, Janet; Etzel, Ruth
Subject: RE: Invitation to Children's Health Month Open House - October 5 at 10:00 in the Green Room

Hi Ruth,

Unfortunately Janet will be in Chicago on Wednesday, October 14 and does not return to DC until about 6pm.

Emily Atkinson
Staff Assistant

Immediate Office of the Acting Assistant Administrator
Office of Air and Radiation, USEPA
Room 5406B, 1200 Pennsylvania Avenue NW
Washington, DC 20460
Voice: 202-564-1850
Email: atkinson.emily@epa.gov

From: McCabe, Janet
Sent: Thursday, October 01, 2015 8:09 AM
To: Etzel, Ruth
Cc: Atkinson, Emily
Subject: RE: Invitation to Children's Health Month Open House - October 5 at 10:00 in the Green Room

Thanks, Ruth.

I'd love to come if I can.

From: Etzel, Ruth
Sent: Thursday, October 01, 2015 8:08 AM
To: McCabe, Janet
Cc: Burke, Thomas
Subject: RE: Invitation to Children's Health Month Open House - October 5 at 10:00 in the Green Room

Hi Janet,

Thanks for the kind invitation. I will try to come over if my 10:00 meeting ends in time.
Congratulations on this major feat!

I think Matthew Davis on my staff may try to join me.

By the way, I want to invite you to join us on October 14 for a meeting of the President's Task Force on Environmental Health Risks and Safety Risks to Children. The meeting is at 2 – 3 pm at HHS and I will fill you in on the details after today's events are over.

Best,

Ruth

From: McCabe, Janet

Sent: Wednesday, September 30, 2015 8:00 PM

To: Etzel, Ruth; Burke, Thomas

Subject: RE: Invitation to Children's Health Month Open House - October 5 at 10:00 in the Green Room

Sounds great, Ruth!

And, you two, I wanted to invite you to come to watch Gina sign the ozone rule tomorrow if you're free. We're going to be gathering in her office at around 10:30. You and your relevant staff more than welcome!

From: Etzel, Ruth

Sent: Tuesday, September 29, 2015 5:34 PM

To: Assistant Administrators; Deputy Associate Administrators; AO Career SES

Cc: Reeder, John; Ali, Mustafa; Tejada, Matthew; Scheraga, Joel; Grevatt, Peter; Mosby, Jackie

Subject: Invitation to Children's Health Month Open House - October 5 at 10:00 in the Green Room



Children's Health Month Open House

Monday, October 5, 2015, 10:00 am – 11:30 am

Green Room

October is Children's Health Month - Join Administrator Gina McCarthy and the Office of Children's Health Protection (OCHP) as we celebrate 20 years of children's health accomplishments since EPA's 1995 Policy on Evaluating Health Risks to Children. On October 5, 2015, OCHP will be hosting a Children's Health Open House in the Green Room. All HQ managers, employees, and staff are invited to attend this exciting event and learn more about the great work being done across the Agency to protect our nation's children. Attendees can take advantage of this unique opportunity to:

- Learn more about how Program Offices and Regions are implementing the Strategy for Protecting Children's Environmental Health
- Share success stories and best practices around children's health initiatives
- Explore new ways to incorporate children's health in our daily work

Help OCHP kick off Children's Health Month by strengthening the Agency's commitment towards protecting children's health. We look forward to your attendance on Monday, October 5th, from 10:00 am - 11:30 am in the Green Room. The Administrator is scheduled to speak between 10:15 am and 10:45 am.

Feel free to forward this invite to others at headquarters.

For questions about this event, please contact Alison Kukla, 202-564-0104, or via email at kukla.alison@epa.gov.

Ruth A. Etzel, MD, PhD

Director

Office of Children's Health Protection

U.S. Environmental Protection Agency

Room 1144 EPA West Building

Washington, DC 20460

To: McCabe, Janet[McCabe.Janet@epa.gov]
Cc: Stewart, Lori[Stewart.Lori@epa.gov]
From: McCoy, Britney
Sent: Fri 10/2/2015 7:54:52 PM
Subject: E-Weekend Package - October 2nd
[Cover Note to Debbie 9-30-15.pdf](#)
[Lakeview Oregon Petition Response Letter psl 9-29-15.docx](#)
[Lakeview Petition Response 9-29-15.docx](#)
[Petition - Cover Letter.pdf](#)
[Petition To Redesignate.pdf](#)
[5806 RtC3 final 10 01 15 MARKED UP response to JM comments bjm jk.docx](#)
[O3 Wildfire Guidance dj.docx](#)

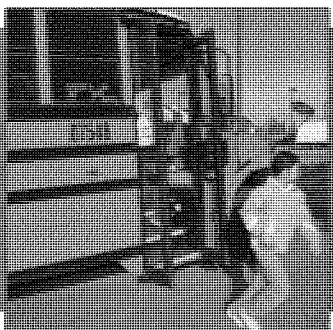
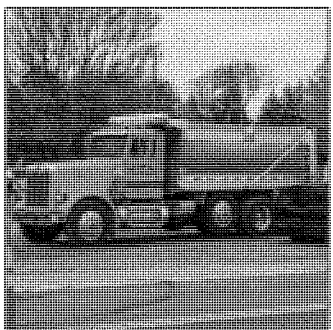
Janet,

Just so you have the electronic copy in addition to the hard copy of the following actions:

1. Guidance on the Preparation of Exceptional Events Demonstrations for Wildfire Events That May Influence Ozone Concentrations
2. 3rd Report to Congress DERA
3. Denial of Petition to Redesignate the Lakeview, Oregon Area to Nonattainment for the 2006 24-hr PM_{2.5}

Have a good weekend.

Britney



Third Report to Congress: Highlights from the Diesel Emission Reduction Program



Acronyms and Abbreviations

CCV	Closed Crankcase Ventilation
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
DERA	Diesel Emissions Reduction Act
DOC	Diesel Oxidation Catalyst
DPF	Diesel Particulate Filter
EPA	Environmental Protection Agency
ET	Emerging Technologies
FY	Fiscal Year
HC	Hydrocarbon
NAAQS	National Ambient Air Quality Standards
NCDC	National Clean Diesel Campaign
NO _x	Nitrogen Oxides
PM	Particulate Matter
Recovery Act	American Reinvestment and Recovery Act
RFP	Request for Proposals

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Executive Summary

From goods movement to building construction to public transportation, diesel engines are the modern-day workhorse of the American economy. Though diesel engines are reliable and efficient, older ones emit significant amounts of exhaust including particulate matter (PM) and nitrogen oxides (NO_x), which can harm human health. Despite the recent implementation of the U.S. Environmental Protection Agency's (EPA) most stringent emissions standards, approximately 10 million older diesel engines remain in use. EPA began awarding clean diesel grants in 2008 under the Diesel Emissions Reduction Act (DERA), a grant program created by Congress as part of the Energy Policy Act of 2005 to reduce diesel exhaust from these older engines.

EPA's National Clean Diesel Campaign (NCDC) within the Office of Transportation and Air Quality administers the DERA grants. EPA awarded the first DERA grants in 2008, the American Recovery and Reinvestment Act (Recovery Act) grants in 2009, and grants from funds appropriated in Fiscal Years (FY) 2009 through 2015. This Third Report to Congress covers final results from the Recovery Act and FYs 2009-2011 and estimated results and benefits from funding in FY 2011-2013.¹

DERA Funding Has Provided a Broad Range of Benefits

Since 2009, the DERA program has achieved impressive outcomes and a range of benefits, summarized in Exhibit 1.

Exhibit 1: DERA Program Benefits and Accomplishments

Investment of DERA Program	Emission and Fuel Reductions
\$520 million funds awarded	312,500 tons of NO _x
58,800 engines retrofitted or replaced	12,000 tons of PM
Up to \$11 billion in monetized health benefits	18,900 tons of hydrocarbon
Up to 1,700 fewer premature deaths	58,700 tons of carbon monoxide
81% of projects targeted to areas with air quality challenges	4,836,100 tons of carbon dioxide
3:1 leveraging of funds from non-federal sources	431 million gallons of fuel

Improved air quality and public health

DERA grants have funded projects that provided immediate health and environmental benefits. From 2009 to 2013, EPA awarded \$520 million to retrofit or replace 58,800 engines in vehicles, vessels, locomotives or other pieces of equipment. EPA estimates that these projects will reduce emissions by 312,500 tons of NO_x and 12,000 tons of PM_{2.5} over the lifetime of the affected engines.² As a result of these pollution reductions, EPA estimates a total present value of up to \$11 billion in monetized health benefits over the lifetime of the affected engines, which include up to 1,700 fewer premature deaths associated with the emission reductions achieved over this same period.^{3,4} These clean diesel projects also are estimated to reduce 18,900 tons of hydrocarbon (HC) and 58,700 tons of carbon monoxide (CO) over the lifetime of the affected engines.

Served disproportionately impacted communities

Many projects have made health and environmental impacts in socially and economically vulnerable areas. Goods movement projects are especially beneficial because they tend to take place in communities that are disproportionately impacted by higher levels of diesel exhaust, such as those near ports, rail yards, and distribution centers. Clean diesel projects reduce exposure for people living in these communities, and the improved air quality provides immediate health benefits. Since the first DERA grants in 2008, EPA has increasingly focused attention on PM and ozone nonattainment areas to achieve maximum benefits for every dollar spent. For projects awarded in FY 2009 to FY 2013, 81% are located in areas with air quality challenges.

Reduced climate impacts and improved fuel savings

DERA projects are estimated to reduce 4,836,100 tons of carbon dioxide (CO₂) over the lifetime of the affected engines and save over 431 million gallons of fuel as a result of idle reduction and more fuel-efficient technologies. Black carbon (BC) is a component of PM and has been linked to a range of climate impacts, including increased temperatures and accelerated snow melt. BC also contributes to adverse health impacts associated with PM exposure. Particles emitted by legacy mobile diesel engines are about 75% BC, so reductions in these BC-rich sources also likely provide climate benefits. DERA projects provide immediate BC reductions by reducing PM emissions from the legacy fleet of diesel engines.

Focused on goods movement and the supply chain

DERA funding has focused on diesel pollution at intermodal hubs, such as delivery centers and ports, and across the nation's transportation infrastructure that supplies goods. In doing so, we are modernizing the diesel powered equipment that moves our economy by transporting goods throughout the nation. EPA will continue to target specific fleets in high diesel exposure areas such as near ports and freight distribution hubs and other disproportionately affected communities.

Generated economic and environmental activity.

Clean diesel projects are cost-effective, according to EPA's calculations of health benefits. Each federal dollar invested in clean diesel projects has leveraged as much as \$3 from

other government agencies, private organizations, industry, and nonprofit organizations, generating between \$5 and \$21 in public health benefits. DERA funding has impacted a variety of sectors and supported many clean diesel technologies. New clean diesel technologies help spur environmental jobs and innovation in the marketplace.

Answered popular demand.

Stakeholders have shown a tremendous amount of interest in EPA-funded clean diesel projects. Funding requests have exceeded availability by as much as 35:1 for our National Clean Diesel Rebate Program and 7:1 for our national grant competitions. These requests highlight DERA's ongoing potential to meet the nation's need for diesel emission reductions and fleet turnover incentives.

Met local needs.

EPA is committed to engaging local communities through clean diesel projects, and targets projects that will be able to continue to provide benefits after the project period has closed. These grants have addressed local environmental and public health problems as DERA grant recipients tailor their projects to their specific community.

Cumulative Impacts and Project Locations Since 2008

In the early years of DERA, many applicants requested funding for retrofits of on-highway vehicles, especially long-haul trucks and school buses, and use of alternative fuels such as B20. As the DERA program progressed and EPA's on-highway 2007 standards were implemented, applicants sought to repower larger vehicles, vessels and equipment in ports and rail yards. Exhibit 2 shows the most frequently funded sectors for the Recovery Act and FY 2009-2013. Exhibit 3 shows the most frequently funded technologies for the Recovery Act and FY 2009-2013.⁵

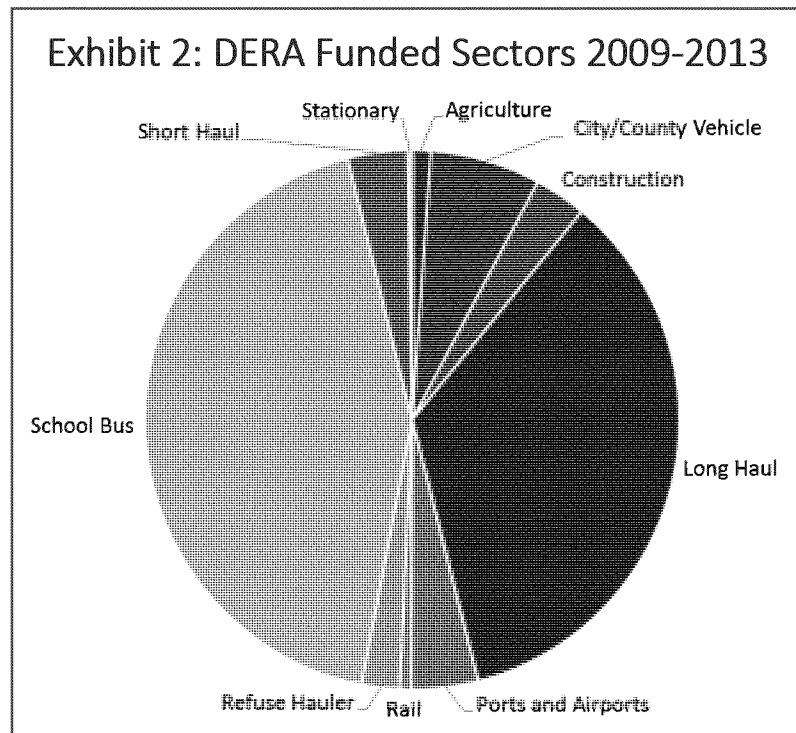
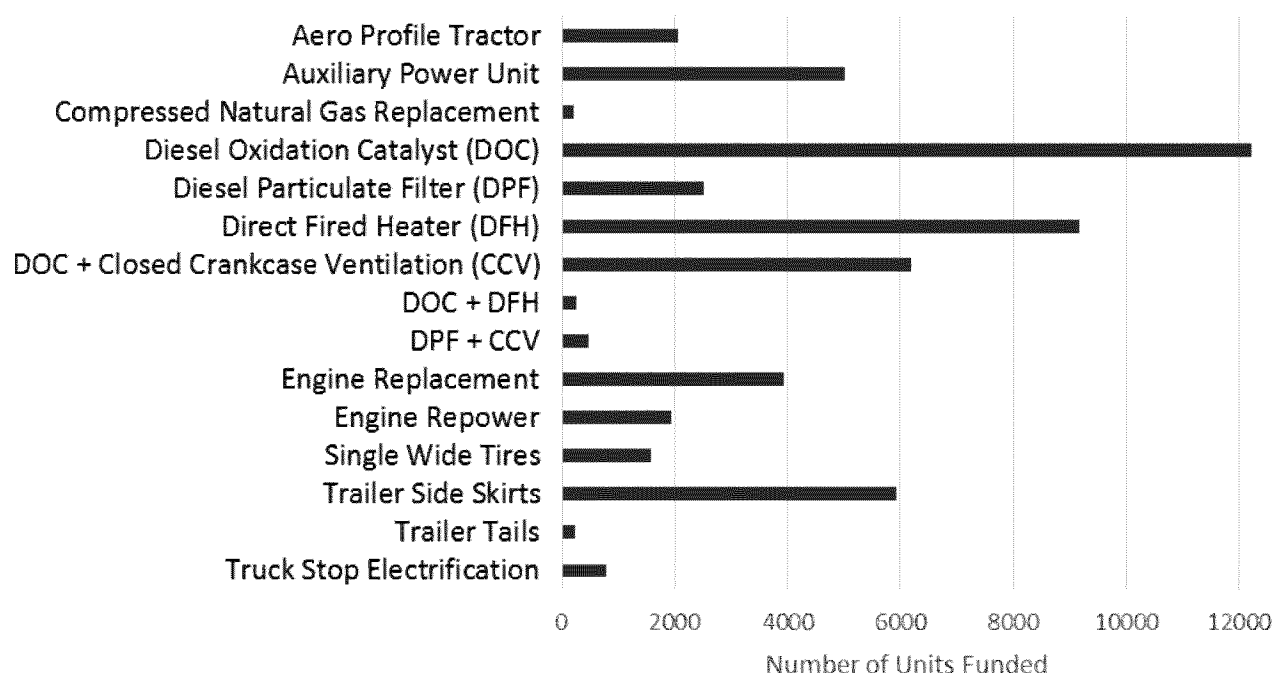


Exhibit 3: DERA Funding by Technology Type, 2009-2013



Leading the Effort for Fleet Turnover

DERA funding has upgraded nearly 73,000 diesel engines since 2008, but many engines in the legacy fleet will continue to operate over the next decade. For example, EPA estimates that more than 1.5 million legacy fleet engines will remain in operation in 2030.⁶ DERA funding provides an incentive to fleet owners to upgrade or replace older equipment and accelerate the fleet turnover across the country. The replaced vehicles or engines are required to be scrapped or permanently disabled ensuring the turnover of older, dirtier engines. Since 2008, demand from fleet owners has exceeded DERA's available funds. There is a need to turn over these older engines, a desire from fleet owners to do so, and a significant public health benefit.

Focus on Cost-Effective Projects

As part of its implementation role, over the years EPA has refined the requirements in the DERA Requests for Proposals (RFP) to lower the amount of EPA funding for individual projects where the vehicle or fleet owner derives an economic benefit (a more efficient engine or vehicle replacement, or fuel-saving technologies). In FY 2011 and earlier, EPA funded up to 75% of the cost of an engine repower. In FY 2012 RFP, EPA cost-share was lowered to 50% and by FY 2013 it was decreased to 40%. Additionally, EPA stopped funding stand-alone cleaner fuel use, though DERA grant recipients were permitted to bundle cleaner fuels with retrofit technologies or engine replacements. EPA also ceased funding stand-alone idle reduction technologies, except on locomotives, shore power systems, truck stop electrification or newer school buses already equipped with retrofit devices, unless the technologies were bundled with verified exhaust control technologies.

Focus on Communities and Improving Areas of Poor Air Quality

In the early years of DERA funding, many projects retrofitted long-haul trucks and fleets for immediate emissions reductions. Now, many of these trucks and buses are already equipped with emission reducing technologies due to EPA's emission standards for new heavy-duty engines, so project focus has shifted to older nonroad engines, vessels and short haul trucks. These engines can remain in service for decades and may predate EPA's most recent heavy-duty and nonroad emission standards, which have created significant reductions in PM and NO_x. These projects, though sometimes requiring more resources per engine than retrofitting trucks or buses, provide important reductions in emissions to local areas.

Community-based projects are those in or near specific locations like ports, rail yards, or bus depots where residents are disproportionately affected by diesel exhaust. Since the first DERA grants in 2008, EPA has increasingly focused attention on PM (per the 1997, 2006 and 2012 National Ambient Air Quality Standards) and ozone (per the 8-hour 2008 National Ambient Air Quality Standard) nonattainment areas. Between FY 2009 and FY 2013, 81% of all projects took place in nonattainment and areas with relatively high concentration of particulate matter.⁷ In order to help reduce instances of asthma, heart and lung disease, and other respiratory ailments, EPA will continue funding projects in areas with air quality challenges to achieve the most meaningful improvements to the health and well-being of local residents.

Streamlined Funding Mechanism: The National Clean Diesel Rebate Program

The DERA reauthorization signed by President Barack Obama in 2011 allowed EPA to offer rebates in addition to grants. EPA opened the first rebate program in 2012 to allow public and private fleet owners to replace older school buses currently in operation. EPA had \$2 million in total funding but received over 1,000 applications requesting more than \$70 million. A lottery was used to make selections and applicants replaced 76 buses across the country. EPA offered a second round of rebate funding in 2013 to replace and retrofit construction equipment and provided rebates to three recipients. Outreach to the multi-segmented construction sector about the rebate opportunity proved difficult, and may have impacted participation in the program, along with EPA's limited ability to provide rebates to private fleets and relatively complex requirements necessary to achieve the most cost-effective results.

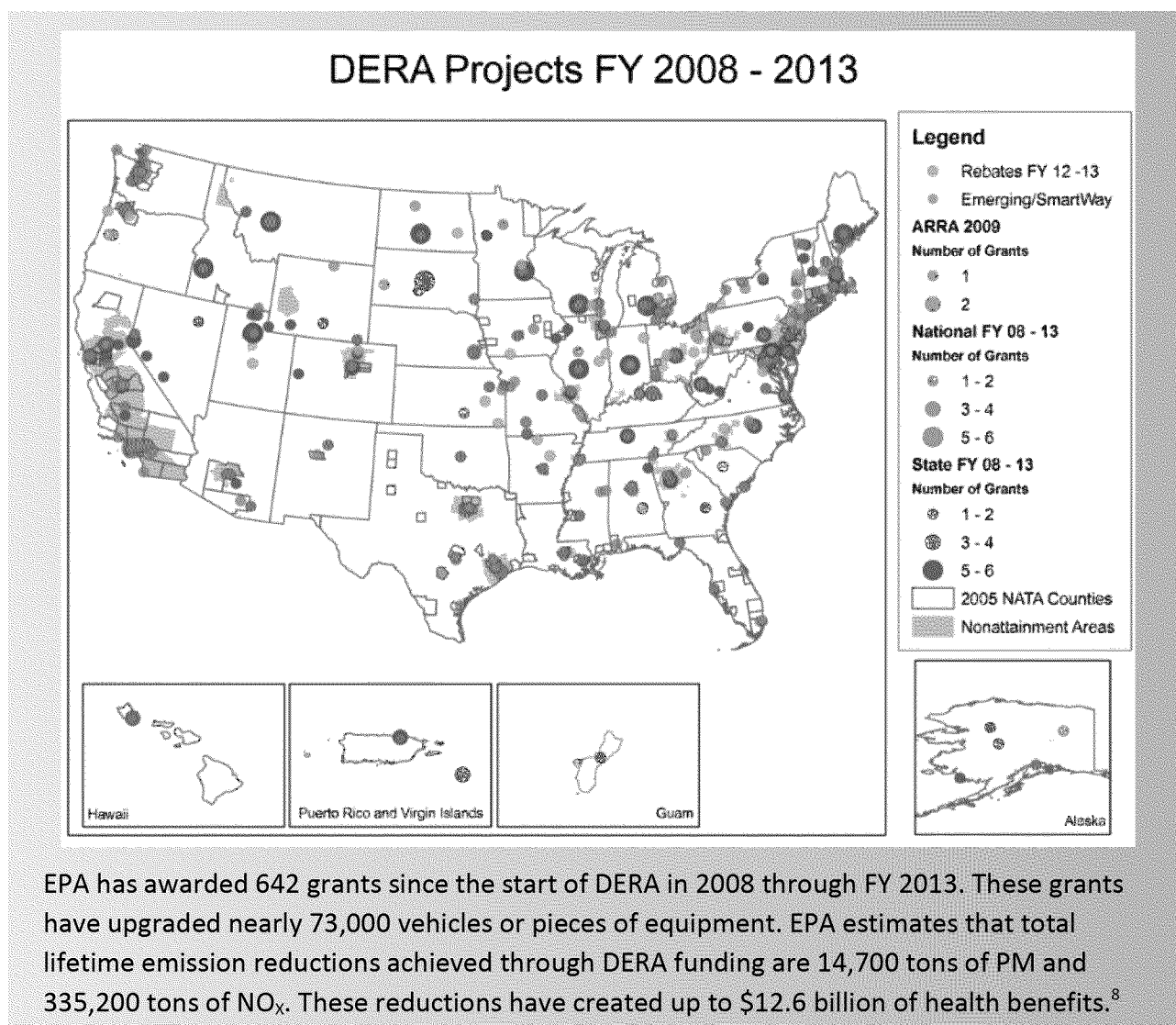
Rebates have proven to be a popular funding mechanism for both public and private school bus fleet owners. The benefits of the rebate program include a streamlined application process and an accelerated project period length. The time from start to finish for a rebate project is approximately half the time of a grant project. EPA offered another school bus replacement rebate program in 2014, the final results of which will be covered in the next Report to Congress.

Clean Diesel Projects at Ports

From the outset of the DERA program, the port sector has been a priority since communities surrounding ports tend to have disproportionately poor air quality. In 2013,

EPA reinvigorated engagement with stakeholders about air quality issues facing ports. These conversations culminated in a Summit in Baltimore that brought together port authorities, state and local government, industry, and communities to discuss efforts to reduce emissions in ports. In FY 2013, EPA offered a ports-only Request for Proposals (RFP) to establish clean diesel projects at ports. EPA provided \$4 million in funding for six grants to replace or retrofit more than 130 engines operating at or around ports.

Exhibit 4: Cumulative Impacts of DERA (FY 2008 – 2013)



Looking Ahead for the DERA Program

EPA will continue to target areas for funding that suffer from poor air quality and will focus on projects that engage local communities and provide lasting benefits. EPA is especially interested in working with port communities and has adjusted its national RFP to prioritize projects that reduce emissions from engines involved in goods movements and freight

industries. In addition, EPA will continue to offer rebate funding and focus on fleet turnover for engines that pre-date EPA's on-highway standards for PM (model year 2006 or older).

Exhibit 5: Diesel Exhaust Health Effects

Direct emissions from diesel engines, especially PM, NO_x, and sulfur oxides (SO_x), as well as other air toxics, contribute to health problems. In addition, NO_x contributes to the formation of ozone and PM through chemical reactions.

PM has been associated with an increased risk of premature mortality, increased hospital admissions for heart and lung disease, and increased respiratory symptoms. Long-term exposure to components of diesel exhaust, including diesel PM and diesel exhaust organic gases, are likely to pose a lung cancer hazard. Exposure to ozone can aggravate asthma and other respiratory symptoms, resulting in more asthma attacks, additional medication, lost school and work days, increased emergency room visits and hospitalizations, and even premature mortality. Repeated exposure to ozone can increase susceptibility to respiratory infection and lung inflammation and can aggravate preexisting asthma. At sufficient concentrations, ozone can even cause permanent damage to the lungs, resulting in the development of chronic respiratory illnesses. Children, outdoor workers, those who exercise outside, people with heart and lung disease, and the elderly are most at risk.

The technologies used in DERA grants can reduce PM emissions by up to 95% and NO_x by up to 90%. Each of these reductions makes an immediate and positive impact on public health. PM and NO_x controls have been the primary focus for the time period of this Report.



For more information on health effects, see [Health Assessment Document For Diesel Engine Exhaust](#), which examines information regarding the health hazards associated with exposure to diesel engine exhaust, and [Update on Diesel Health Issues and EPA Actions](#).

Section 1: DERA National Competitive Grants

EPA prioritizes clean diesel projects that provide immediate health and environmental benefits and target areas of greatest need. The [DERA legislation](#) emphasizes maximizing health benefits and serving areas of poor air quality, such as non-attainment areas for PM and ozone, and conserving diesel fuel.

For each fiscal year, by statute, EPA sets aside 30% of funding for states to establish their own clean diesel programs. The remaining 70% of the annual appropriation is used for national competitive grant and rebate funding opportunities. Some of those funds may be reserved for special funding opportunities, such as the National Clean Diesel Rebate program, but most is directed to a [nationwide, competitive grant program](#).

Exhibit 6: Total DERA Funding Appropriations in this Report

Recovery Act	2009/2010	2011	2012	2013
\$300 million	\$120 million	\$50 million	\$30 million	\$20 million

Fiscal Year 2009/2010

EPA received an appropriation of \$60 million in both FY 2009 and FY 2010; of the combined total of \$120 million, \$64 million went to the national competitive program.⁹ Combining the two years' appropriations streamlined the RFP process and provided applicants an opportunity to propose larger projects.

EPA received over 350 applications with applicants requesting five dollars for every one available. EPA awarded 69 national, competitive grants. These grants retrofitted or replaced 7,700 engines and pieces of equipment, see Exhibit 7 and Exhibit 8.

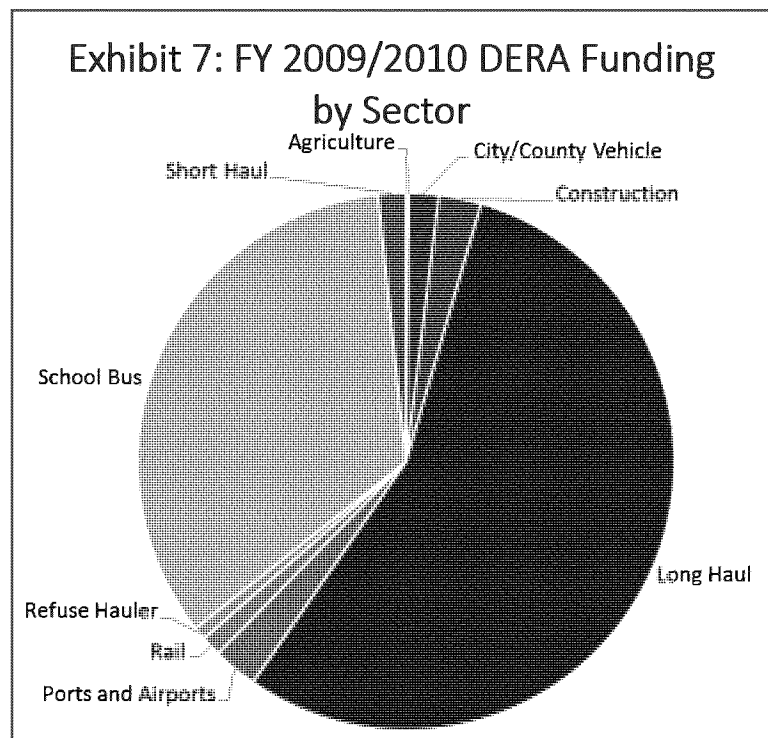
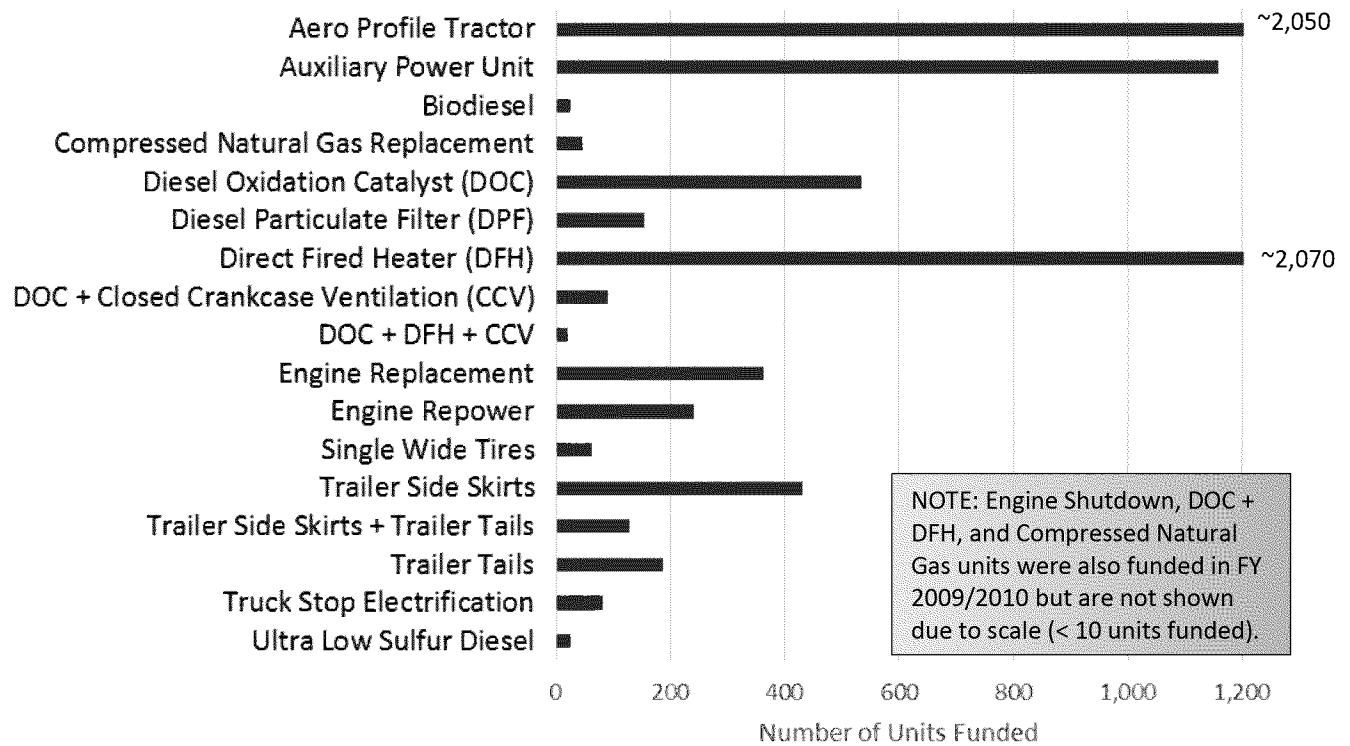


Exhibit 8: FY 2009/2010 DERA Technologies



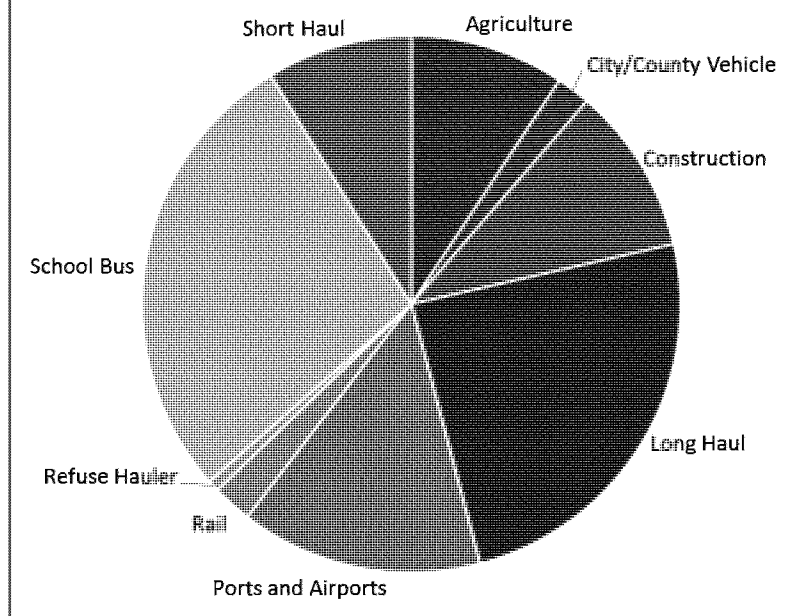
DERA FY 2009/2010 grants reduced 56,500 lifetime tons of NO_x; 1,700 tons of PM; 2,800 tons of HC; 7,800 tons of CO; and 882,900 tons of CO₂. These projects also saved over 78 million gallons of fuel.

Fiscal Year 2011

EPA received a \$50 million appropriation in FY 2011 and directed \$32 million to the national competitive program. EPA funded 47 national competitive grants across the country, one of which was an Emerging Technology grant. Matching funding contributed was \$38 million. EPA received 235 applications requesting \$289 million, see Exhibit 9 and Exhibit 10.

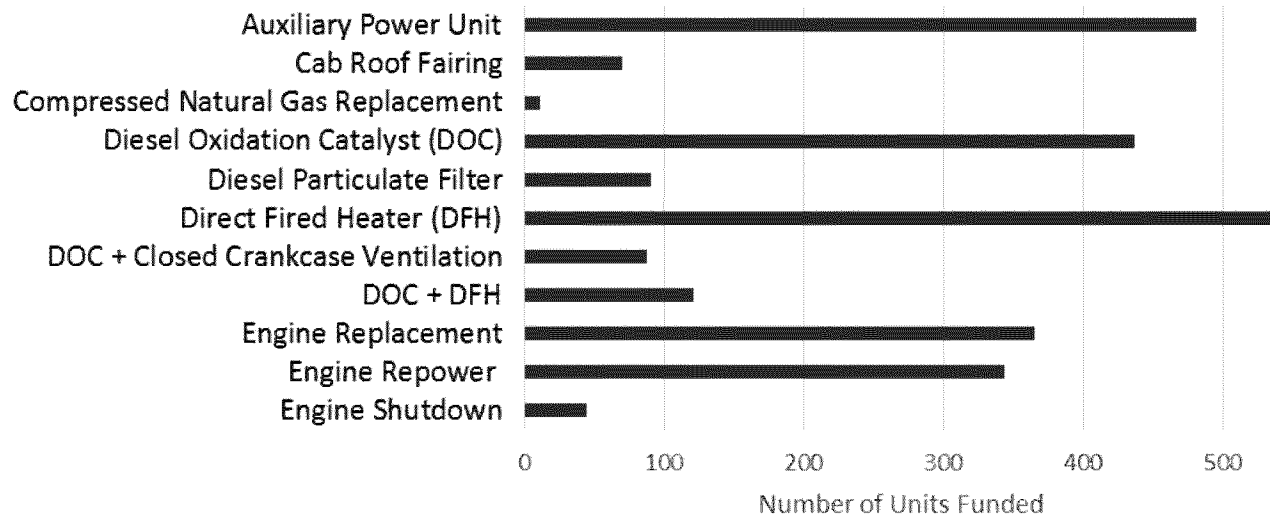
DERA FY 2011 grants reduced 37,800 lifetime tons of NO_x; 1,400 tons of PM; 2,600 tons of

Exhibit 9: FY 2011 DERA Funding by Sector



HC; 7,000 tons of CO; and 263,300 tons of CO₂. These grants upgraded 2,600 engines or pieces of equipment, and the projects saved more than 23 million gallons of fuel.

Exhibit 10: FY 2011 DERA Technologies



Fiscal Year 2012

In FY 2012, EPA received \$30 million for clean diesel projects. EPA allocated approximately \$20 million for the national competitive program and funded 26 grants to reduce emissions from 868 diesel engines or pieces of equipment. Matching funding contributed was \$39 million. EPA received 94 applications seeking nearly \$132 million in funding, see Exhibit 11 and Exhibit 12.

DERA FY 2012 grants reduced 26,600 lifetime tons of NO_x; 800 tons of PM; 1,100 tons of HC; 3,500 tons of CO; and 100,700 tons of CO₂. These projects also saved nearly 9 million gallons of fuel.

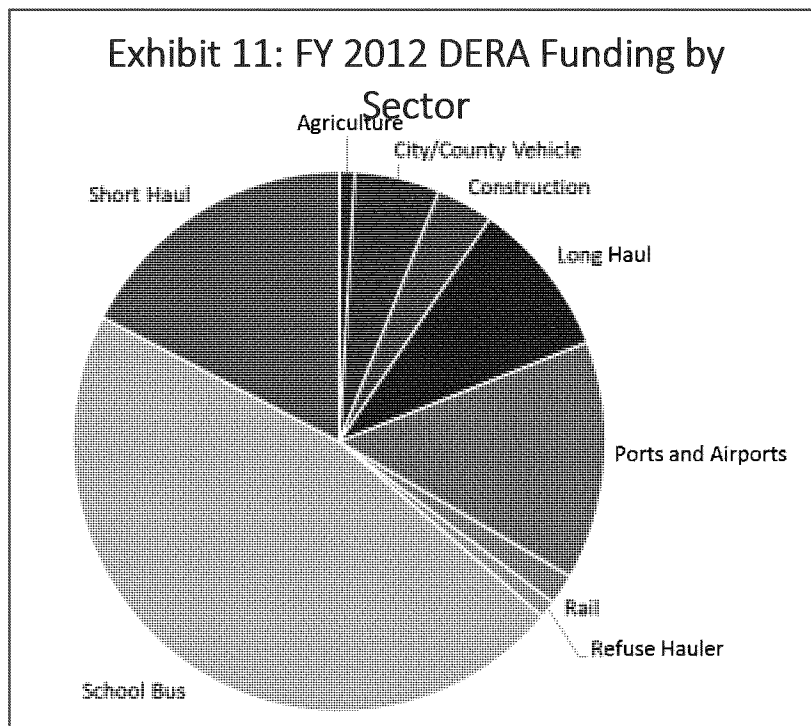
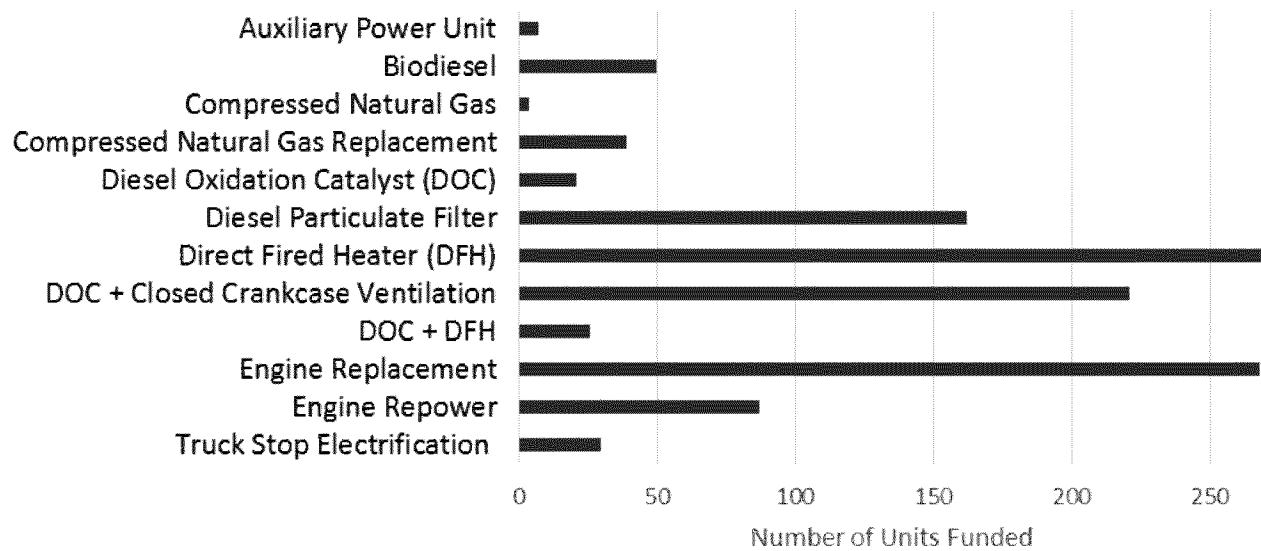


Exhibit 12: FY 2012 DERA Technologies



Fiscal Year 2013

In FY 2013, EPA received a total appropriation of \$20 million and dedicated \$14 million for the rebate program, the ports-specific RFP, and the national RFP. EPA made \$9 million available under the FY 2013 National Clean Diesel Funding Assistance Program and received 78 applications seeking almost \$48 million in funding. EPA funded 23 competitive grants in FY 2013. Matching funding contributed was \$23 million. These grants retrofitted, replaced or repowered 334 engines and pieces of equipment, see Exhibit 13 and Exhibit 14.

DERA FY 2013 grants reduced 6,900 lifetime tons of NO_x; 170 tons of PM; 100 tons of HC; 1,100 tons of CO; and 91,200 tons of CO₂. These projects also saved more than 8 million gallons of fuel.

Exhibit 13: FY 2013 DERA Funding by Sector

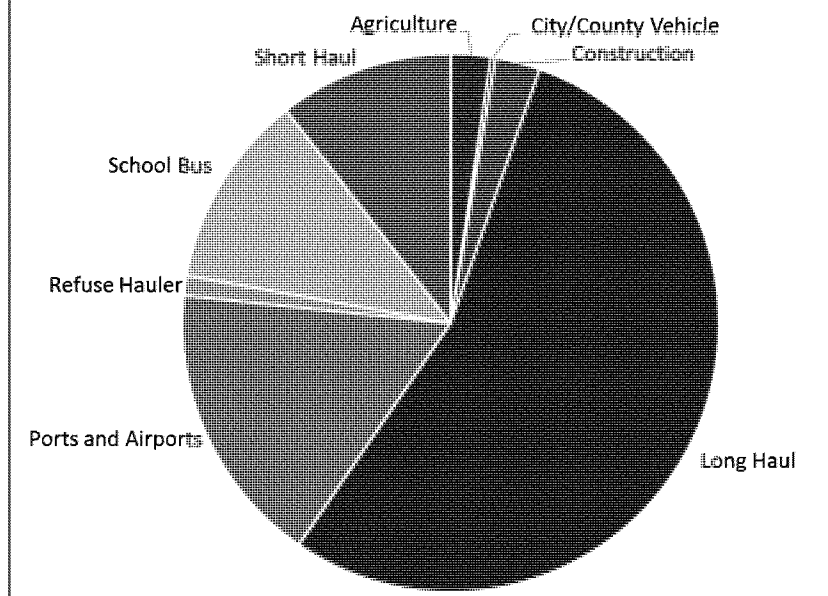
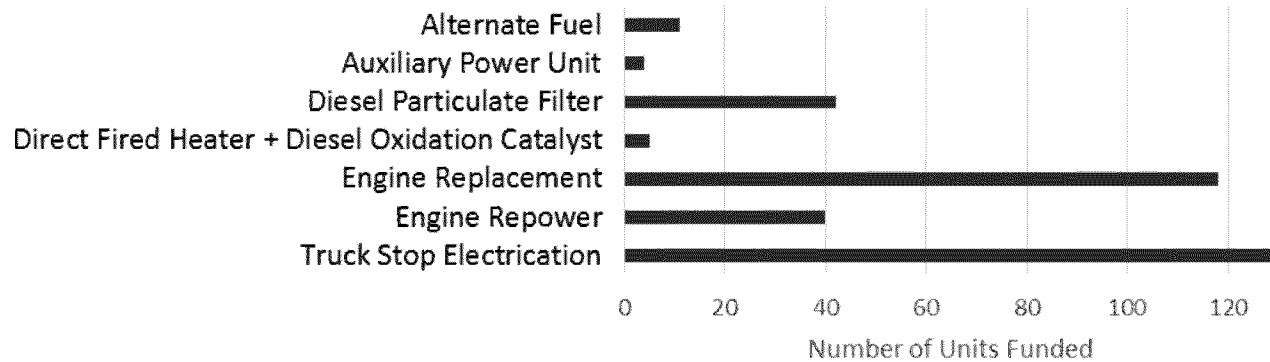


Exhibit 14: FY 2013 DERA Technologies



Lessons Learned and Looking Ahead

EPA continues to target DERA funds to maximize cost-effectiveness and make significant emissions reductions in areas disproportionately exposed to diesel exhaust. In 2012, EPA conducted an evaluation and planning process to target those engines in the remaining fleet that have significant useful life left but are heavy emitters. These engines are often found at ports and are used for goods movement. Each funding opportunity since has been crafted to attract and fund the most impactful projects, often in the goods movement sector.

For the national competitive program, funding levels are not sufficient to meet applicant demand. For the past two fiscal years, over 1000 engines were not able to be funded from the following types of fleets: transit buses, short haul/delivery trucks, refuse haulers, locomotives, agriculture, construction, city/county vehicles, school buses, marine, ports and airports, and long haul trucks.



DERA SmartWay Finance Grants

The SmartWay Finance program competitively awarded grants to establish programs to provide fleet owners access to financing through the use of low-cost loans and loan guarantees for the purchase of fuel-saving and emission control technologies and vehicle replacements. SmartWay Finance grants established programs that assisted small- and medium-sized fleet owners in purchasing cleaner, more fuel-efficient trucks and equipment.

EPA awarded four grants in FY 2009/2010 and five in the Recovery Act with more than \$22.5 million to replace or retrofit more than 1,400 engines or pieces of equipment. In total, EPA had selected nine projects in FY 2009/2010 and Recovery Act, but three projects returned funds and were closed before they achieved results. The FY 2009/2010 and Recovery Act Finance Grants reduced 19,200 lifetime tons of NO_x; 600 tons of PM; 1,000 tons of HC; 5,600 tons of CO; and 82,900 tons of CO₂. These grants will save over 7 million gallons of fuel.

Lessons Learned

Grants to set up financing programs have proven to be a difficult mechanism to fund clean diesel projects. Finance grants generally require more administrative oversight and more time to establish and accomplish grant objectives, due to the revolving nature of loan programs. In addition, some grantees could not make the envisioned program work due to changing economic factors or other issues. EPA deobligated \$18.9 million in funding for these grants and returned it to either the U.S. Treasury (Recovery Act grants) or redirected the funds to other clean diesel DERA grants. EPA has closed all finance grants awarded from 2008 to 2010. Because DERA grants have not proven to be a good mechanism for establishing and administering low-cost financing programs, EPA is not anticipating loan programs in the future.

Exhibit 15: Reducing Emissions on School Buses through Retrofits¹⁰

Nearly 13,000 Diesel Oxidation Catalysts (DOC) or DOC + Closed Crankcase Ventilation (CCV) have been installed on school buses with DERA funding, as well as approximately 1,400 Diesel Particulate Filters (DPF). In 2014, EPA's Technology and Assessment Center within the Office of Transportation and Air Quality conducted in-use testing on DOCs and DPFs and confirmed these technologies achieve verified levels of emissions reduction and remain durable in real world applications. Between 2008 and 2012, multiple manufacturers' verified retrofit devices were procured by EPA and tested.

The devices were typically from prior grant projects and were used on school buses in normal operation for two to four years and accumulating up to 90,000 miles. All testing was performed on an engine dynamometer. Nine DPFs and three DOCS were tested for PM, HC, and CO. Per the tables on the right, DOCs alone were shown to reduce PM emissions up to 20%, and DPFs can reduce PM up to 99%.

DOC Emissions Reduction		
PM	HC	CO
20%	76%	63%
16%	81%	66%
20%	70%	37%

DPF Emissions Reduction		
PM	HC	CO
94%	37%	N/A
64%	57%	55%
65%	72%	61%
51%	51%	53%
82%	74%	65%
99%	86%	73%
97%	92%	77%
98%	86%	77%
97%	87%	73%

DERA Emerging Technology Grants

The Emerging Technology (ET) program fostered the development of next generation diesel emissions reduction technologies by partnering technology manufacturers with fleets to test the effectiveness of the products. If the products proved successful in the field, they became verified technologies and available for wider use. The program supported projects to demonstrate and improve seventeen technologies.

In total, EPA provided over \$15 million in funding for emerging technology grants to upgrade more than 200 engines or pieces of equipment while also supporting technology innovation. In FY 2009/2010, EPA awarded funding to five ET projects. Eleven projects were selected to receive Recovery Act funding. In FY 2011, EPA funded one ET project.

Emerging technologies included selective catalytic reduction, diesel oxidation catalysts, engine shutdown, engine upgrades, auxiliary power units, diesel particulate filters, exhaust gas recirculation, a lean NOx catalyst, and hybrid replacements. The ET grants reduced 4,400 lifetime tons of NOx; 160 tons of PM; 220 tons of HC; 1,600 tons of CO; and 2,200 tons of CO₂.

Lessons Learned

While the ET program was successful in demonstrating some new products, there were many challenges for manufacturers and fleets with the limited DERA funding available. Consequently, EPA suspended the ET program as DERA allocations decreased. At the same time, the DERA program prioritized funding to areas with poor air quality given limited funding. Complexities associated with emerging technologies and their grant projects also made them more costly for the numbers of devices installed. Of the emerging technologies included on the ET program list, over half elected to not pursue full EPA verification or certification.

DERA Tribal Grants

A priority for the DERA program is to work with Tribes to reduce emissions. EPA began funding Tribal grants through the national competitive program in FY 2009/2010. Between FY 2009-2013, EPA received applications requesting nearly \$7 million in funding. By FY 2013, EPA had awarded ten tribal grants in Alaska, Arizona, California, Iowa, Minnesota, and Washington. These grants have provided \$3,204,660 to retrofit or replace marine vessels, mining equipment, generators, municipal vehicles, and school buses.

Lessons Learned and Looking Ahead

Taking into consideration Tribal feedback, EPA offered a stand-alone tribal RFP in FY 2014 with \$1 million in available funding.

EPA is committed to strengthening partnerships with tribal communities and will likely continue to offer a stand-alone RFP for tribes with targeted tribal outreach.

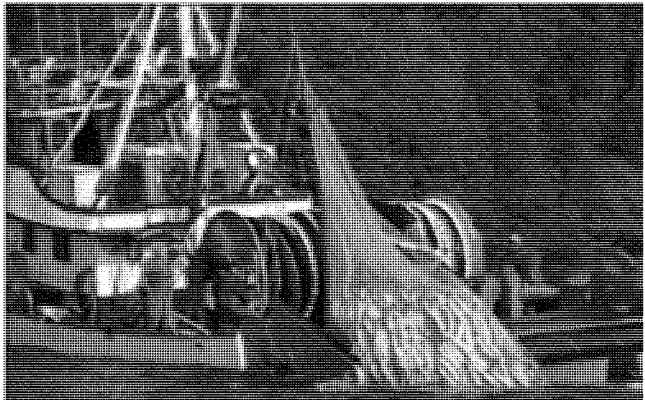
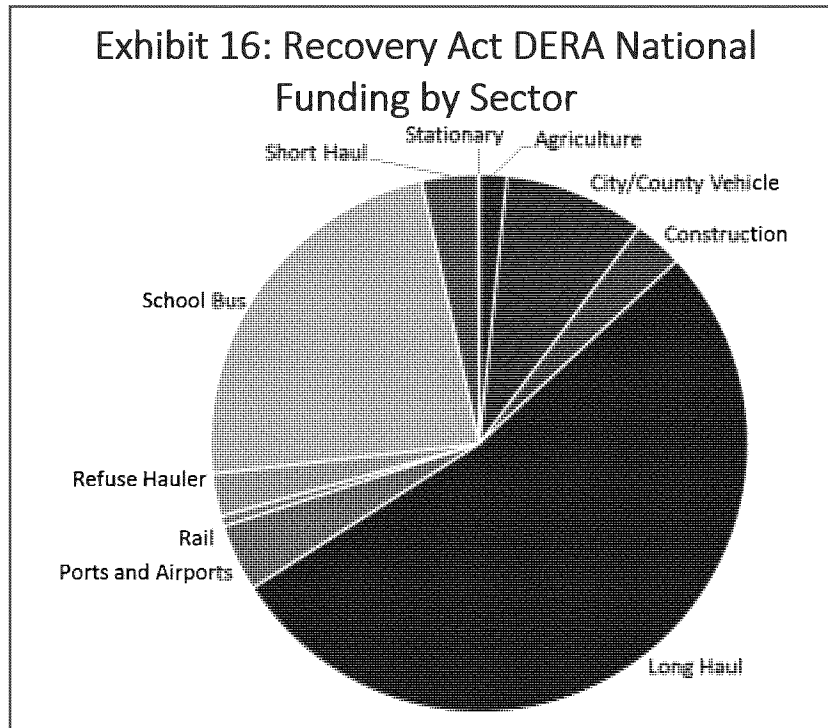


Photo Courtesy of Northwest Indian Fisheries Commission

Section 2: American Recovery and Reinvestment Act

In 2009, EPA received \$300 million for DERA through the American Recovery and Reinvestment Act (Recovery Act), see Exhibit 16 and Exhibit 17.¹¹ EPA funded “shovel-ready” large and impactful clean diesel projects that delivered immediate emissions reductions. More than 600 entities applied, requesting \$1.7 billion in project funds and offering \$2.2 billion in matching funds. EPA awarded 89 competitive projects across the country, upgrading nearly 17,000 pieces of equipment, see Exhibit 16 and Exhibit 17.¹²



DERA Recovery Act grants reduced 102,500 lifetime tons of NO_x; 3,600 tons of PM; 6,000 tons of HC; 17,000 tons of CO; and 2,235,700 tons of CO₂. These projects also saved nearly 200 million gallons of fuel. Grant recipients reported to the Office of Management and Budget that these projects created or saved approximately 3,000 jobs.¹³



Photo courtesy of Michael Kearns,
City of Richmond, VA

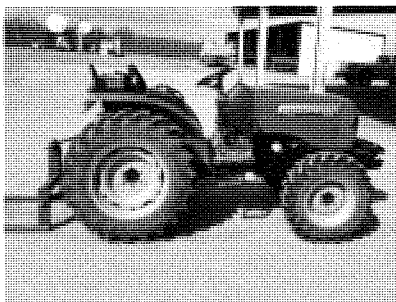


Photo courtesy of Mat Carlile, Utah
Department of Environmental Quality

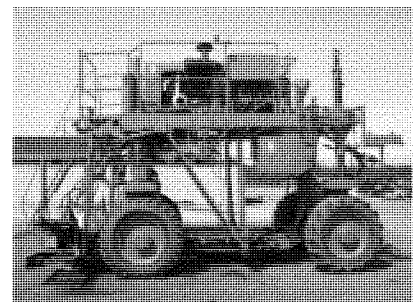


Photo courtesy of the San Joaquin
Valley Unified Air Pollution Control
District

Exhibit 17: Recovery Act DERA National Technologies

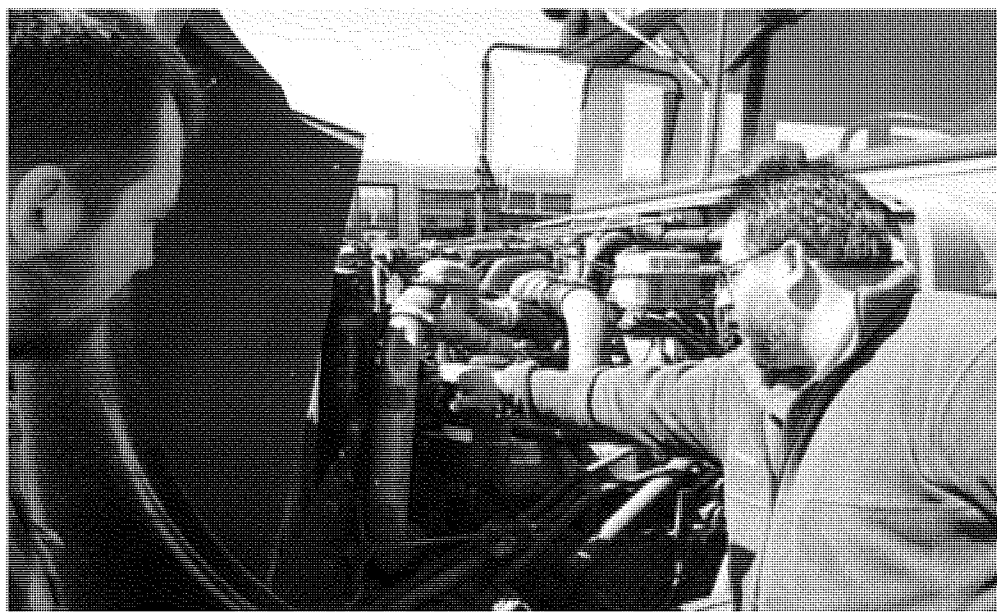
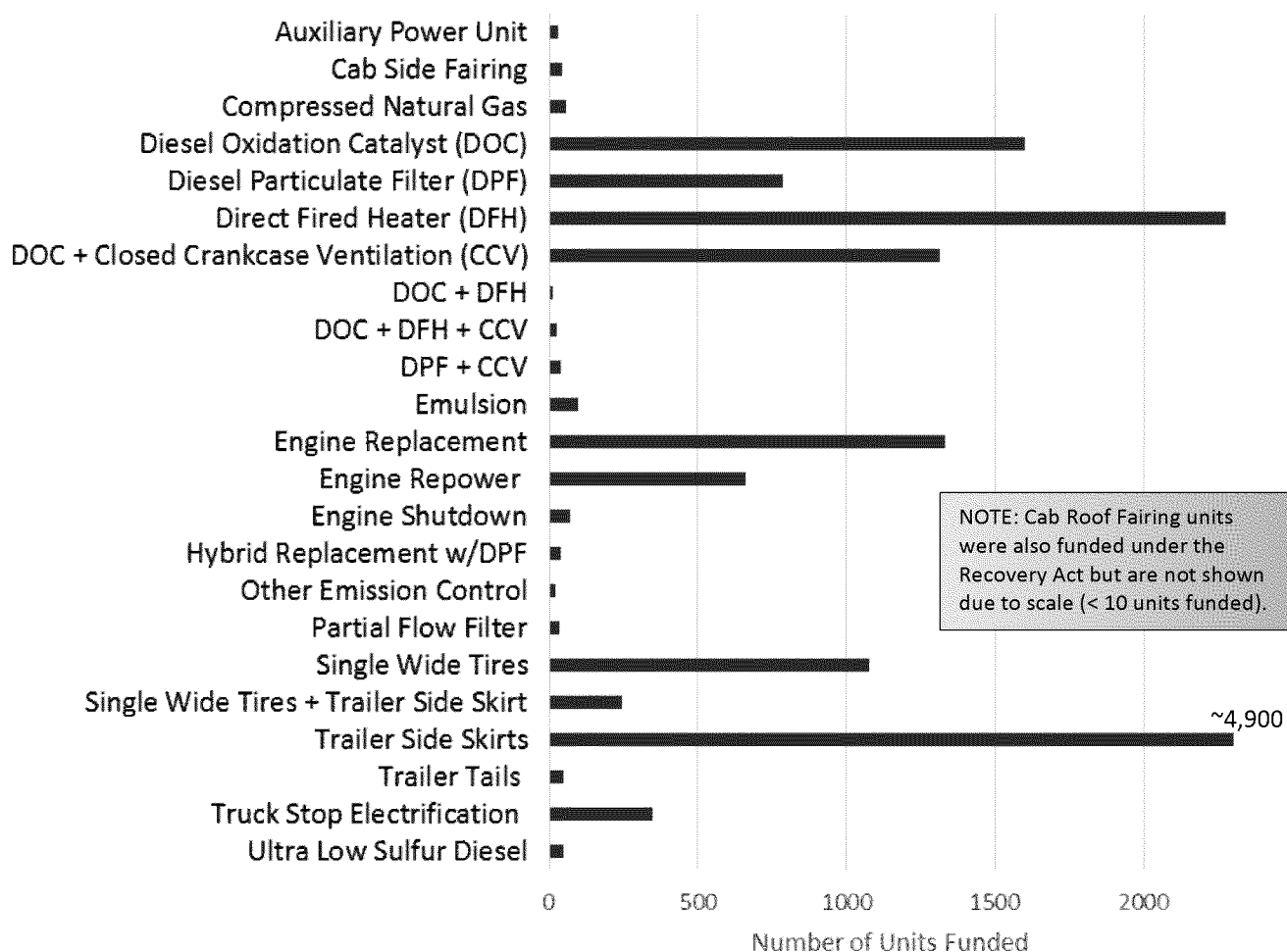


Photo courtesy of City of Portland Bureau of Planning and Sustainability

Recovery Act State grants

As part of the Recovery Act, EPA funded state grants as well as national competitive DERA grants. EPA allocated \$88 million to participating states to retrofit or replace 13,700 engines or pieces of equipment. These projects reduced 22,600 lifetime tons of NO_x; 1,400 tons of PM; 1,900 tons of HC; 7,900 tons of CO; and 538,600 tons of CO₂. These projects also saved more than 48 million gallons of fuel, see Exhibit 18 and Exhibit 19.

Exhibit 18: Recovery Act DERA State Funding by Sector

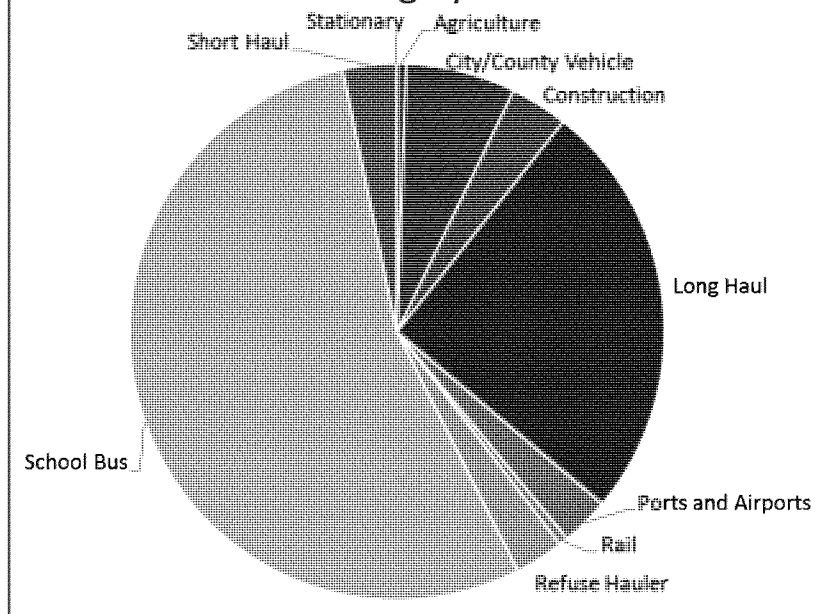
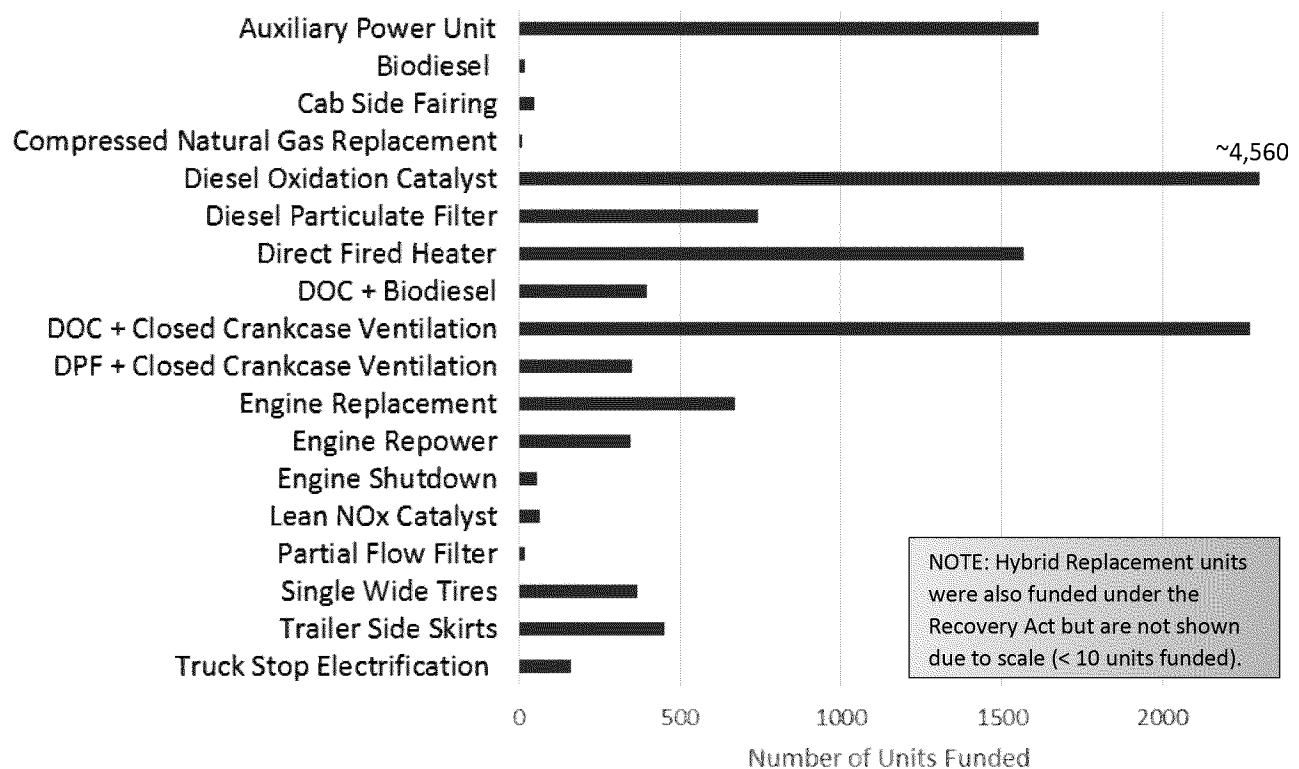


Exhibit 19: Recovery Act DERA State Technologies



Section 3: DERA State Program

The DERA legislation requires EPA to offer 30% of the annual appropriation to states to implement their own clean diesel programs. The fifty states began receiving DERA funds in 2008, and the District of Columbia became eligible as a state in FY 2009. The state agencies receiving and administering the DERA funds do not directly implement projects; instead, the agencies run their own funding programs to offer sub-grants and loans to applicants within their states. State agencies must select eligible applicants according to EPA's requirements, but the selections are made entirely by the states to best fit state and local needs. Participating states received supplemental funds in 2009, 2010, and 2011 to their original FY 2008 awards. Supplemental funding to the original award allows for greater continuity for state projects.

Puerto Rico became eligible for state funding in FY 2011, and the DERA reauthorization allowed Guam, the United States Virgin Islands, American Samoa, and the Commonwealth of the Northern Mariana Islands to receive funds beginning in FY 2012. The five U.S. territories split funds equivalent to one state's funding allotment.

FY 2008-2011 State Grants

In total, states and territories received about \$54 million in FY 2008-2011 funds.¹⁴ EPA made 55 initial awards, and these grants received supplemental funding in the subsequent fiscal years, see Exhibit 20 and Exhibit 21. These projects reduced 19,300 lifetime tons of NO_x; 910 tons of PM; 1,300 tons of HC; 5,100 tons of CO; and 500,600 tons of CO₂. These projects also saved about 45 million gallons of fuel and retrofitted or replaced 12,000 engines or pieces of equipment.

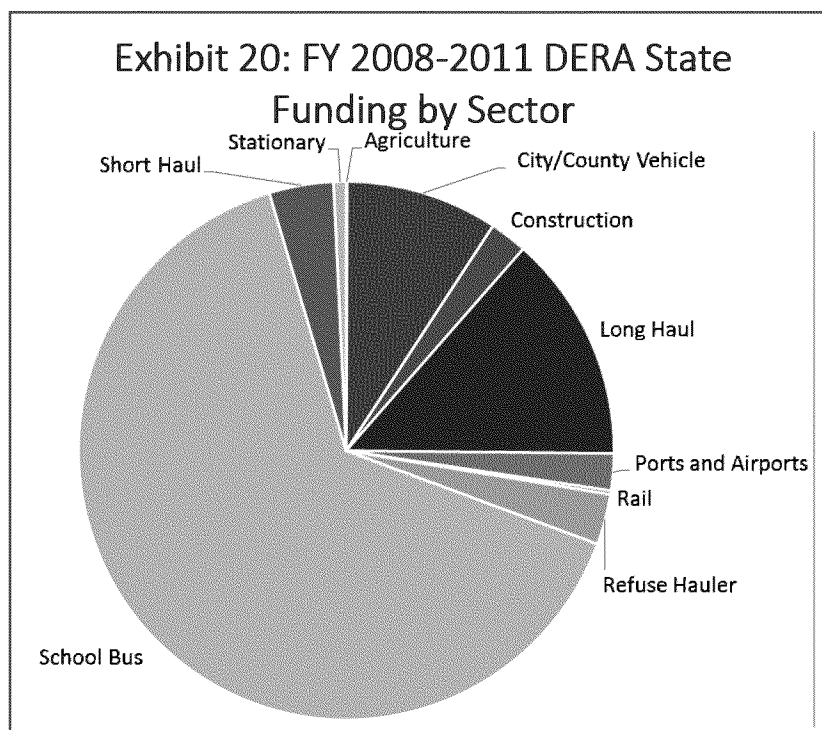
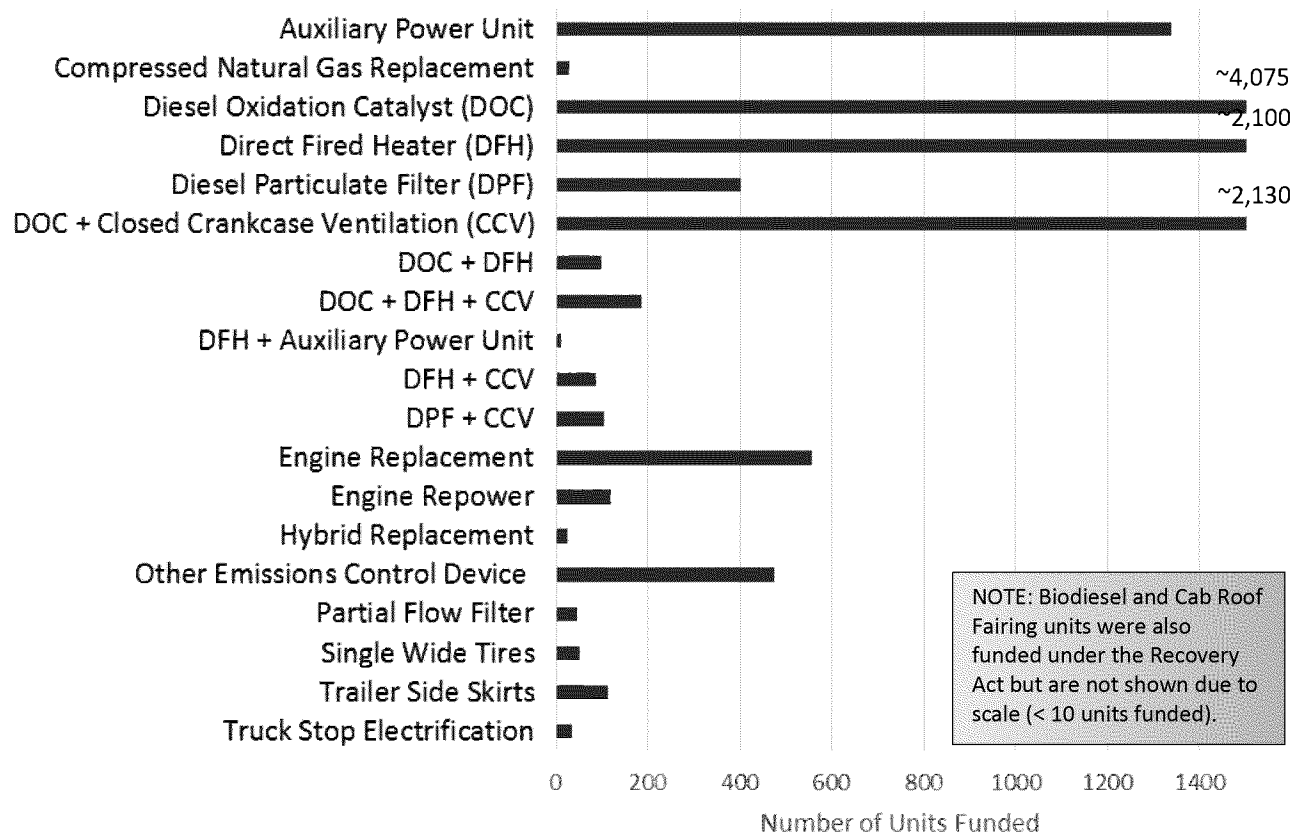
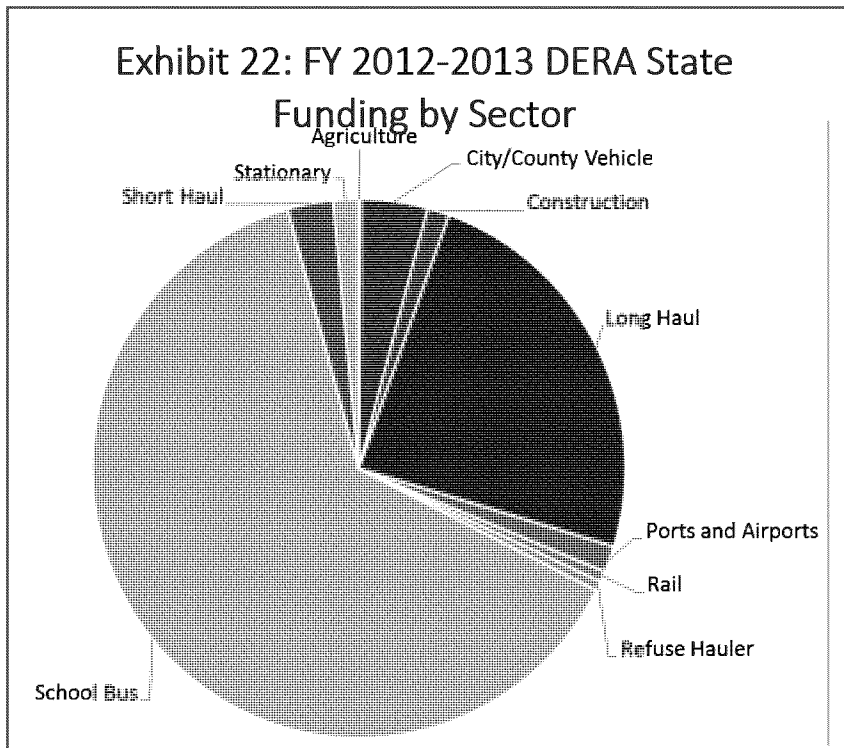


Exhibit 21: FY 2008-2011 DERA State Technologies



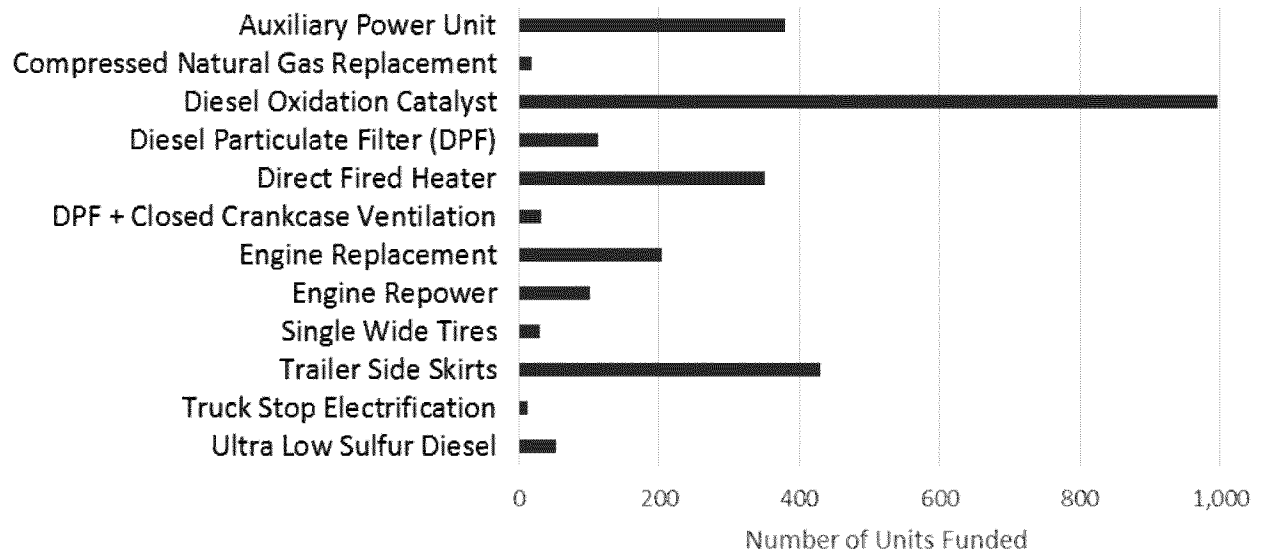
FY 2012-2013 State grants

After finishing the FY 2008-2011 grants, EPA decided to reduce the amount of time state grants remain open in order to encourage states to draw down funding more quickly and to streamline the grant process. EPA switched to two year funding increments, so the next round of state grants began in FY 2012 and concluded with FY 2013 funding. In total, states and territories received about \$9.5 million in FY 2012-2013 funds. EPA made 51 initial awards in FY 2012 and 29 supplemental awards in FY



2013, see Exhibit 22 and Exhibit 23. These projects reduced an estimated 4,500 lifetime tons of NO_x; 200 tons of PM; 240 tons of HC; 1,200 tons of CO; and 86,500 tons of CO₂. These projects also saved about 7.7 million gallons of fuel and retrofitted or replaced 1,900 engines or pieces of equipment.

Exhibit 23: FY 2012-2013 DERA State Technologies



Lessons Learned and Looking Ahead

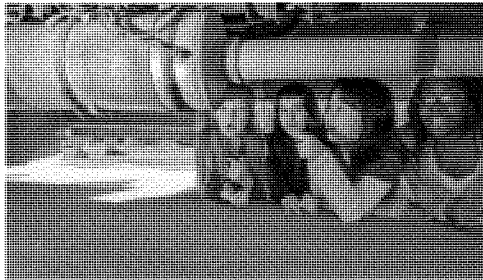
After the conclusion of the FY 2012-2013 state grants, EPA began a new grant cycle for FY 2014-2015. Participating States began new grants if they had completed their work plan for FY 2013 grants. EPA conducted an analysis of the State grant program and found that State clean diesel projects could be more cost effective if they adhered to the DERA National program requirements. In 2014, EPA began requiring States to follow the requirements in the DERA National Program RFP for model years, technologies, cost-share and other factors. This proved difficult for some States, so some applied to EPA for and received waivers as they adjusted their programs to the more rigorous requirements.

Section 4: DERA National Clean Diesel Rebate Program

A significant change in the DERA reauthorization signed in January 2011 provided EPA with the authority to award rebates. Rebates may be awarded to public institutions and some non-profit organizations, and private entities if they have a license, lease or contract with an eligible public organization. The [National Clean Diesel Rebate Program](#) was the first-ever rebate program within EPA.

Rebates and grants differ in a variety of ways. One distinction is the simplified application process for rebates, which applicants prefer, compared with the higher administrative burden of the grant process. Rebates specify exact project requirements and eligibility. This allows for a more streamlined application, selection, and payment process. The rebate amount is specified up front and, once the selected applicant has completed all work, they are reimbursed with the rebate amount. EPA chose to randomly select school bus rebate winners that met all program requirements.

The 2012 School Bus Replacement Rebate Program



School buses were selected as the target fleet for the pilot rebate program because protecting children's health is a very high priority for EPA, and NCDC has a long and successful history with the school bus sector on clean diesel projects.

In November 2012, EPA launched the 2012 School Bus Replacement Rebate Program, a pilot program to replace older school buses with newer vehicles powered by certified 2012 or newer engines. EPA set aside \$2 million for this program, and each rebate award funded approximately 25% of the bus replacement; fleet owners covered the remaining cost. This funding opportunity was aimed at school bus fleet owners with 1994 to 2003 model year engines seeking to replace those buses with a certified 2012 or newer model year engine. Eligible replacement school buses may operate on ultra-low sulfur diesel, battery or hybrid drivetrains, or alternative fuels. Health benefits are achieved by scrapping the old buses and replacing them with cleaner ones.

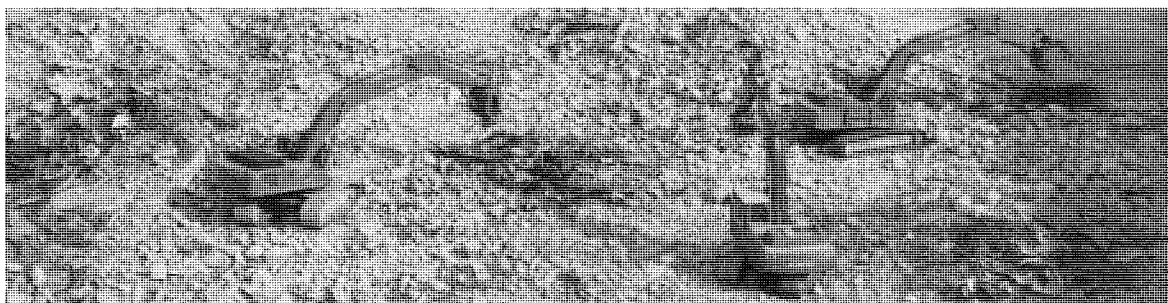
School bus fleet owners showed a tremendous demand for rebates. During the one month open application period, EPA received over 1,000 applications from school bus fleet owners requesting more than \$70 million to replace over 2,800 buses across the nation. EPA conducted a random lottery to select twenty-eight applicants to replace 76 buses with rebates totaling \$2 million. EPA announced these selectees in January, 2013. Matching funding contributed was \$6 million.

Selected applicants were notified and given 90 days to submit purchase orders to EPA to ensure they were making adequate progress on replacing the buses. Those selected applicants that did not submit the purchase order within 90 days were replaced with applicants from the waitlist. In total, selectees had to replace and scrap the old buses within 9 months of their selection. After submitting the appropriate paperwork, they received their EPA rebate.

In total, the school bus rebate program reduced 11 tons of PM, 215 tons of NO_x, 18 tons of HC and 78 tons of CO.

The 2013 Construction Equipment Rebate Program

EPA selected the construction sector for its FY 2013 round of rebates with \$2 million in available funding. EPA chose construction equipment, part of the nonroad sector, after offering rebates to on-road school buses the previous year. In November 2013, EPA opened the application period for the 2013 Construction Equipment Funding Opportunity. EPA accepted applications until January 2014. This funding opportunity allowed public fleets and private fleets to retrofit Tier 2 or Tier 3 emissions standard construction equipment engines with Diesel Particulate Filters (DPFs) or to replace engines with engines certified to cleaner emissions standards. In order to maximize health benefits, the construction equipment had to operate in priority counties—areas with air quality challenges. In order to be eligible, projects had to be located in: PM 2.5 or 8-Hr Ozone Nonattainment Areas or 8-Hr Ozone Maintenance Areas, areas that participate in EPA's Ozone Advance Program or PM Advance Program, and/or counties where all or part of the population is exposed to more than 2.0 µg/m³ of diesel particulate matter emissions as determined by the 2005 National-Scale Air Toxics Assessment.



Selected applicants had twelve months from the date of selection to take delivery and install the new Diesel Particulate Filters or to replace the engine. Those replacing engines also had to provide proof of scrappage for the old engine to ensure that it was taken out of use.

EPA received nineteen applications requesting over \$1.3 million in rebate funding. However, some applicants experienced issues with technology applicability or their portion of the cost-share. In the end, EPA awarded \$52,000 to 3 applicants to install one DPF and two engine replacements. The rebates reduced 11 tons of NO_x; 1 ton of PM; 1 ton of HC; and 6 tons of CO.

Lessons Learned and Looking Ahead

Fleet owners across a variety of sectors were very enthusiastic about the pilot rebate program. All of the DERA program's stakeholders praised the program for inducing fleet owners to replace older dirtier engines. Without the rebate, many of these owners would not have been able to afford the replacement.

The construction program did not receive the same response as the school bus program, and there are a few likely reasons. EPA wanted to prioritize equipment operating in areas of poor air quality as well as those model years most cost-effective to upgrade or replace. Selected applicants who wanted to install diesel particulate filters needed to spend two weeks data-logging to make sure their engine was appropriate for DPF installation. The complexity, location requirement, and added steps were deterrents for potential applicants so EPA received fewer applications than the more straightforward requirements for school bus replacements. Another impediment is likely that most heavy-duty diesel equipment is operated by private entities; however, DERA cannot directly fund private fleet projects unless the private entity has a contract or lease with a public entity. If DERA could provide rebates directly to the private sector fleets without the public sector contract requirement, many additional sectors could be successfully targeted including ports/marine, locomotive, trucking, agriculture and construction.

Given the success of the School Bus Replacement Rebate Program and the importance of children's health, EPA will likely fund more school bus rebates in the future. These rebates make a visible impact in communities across the country by providing children with healthier rides to school.

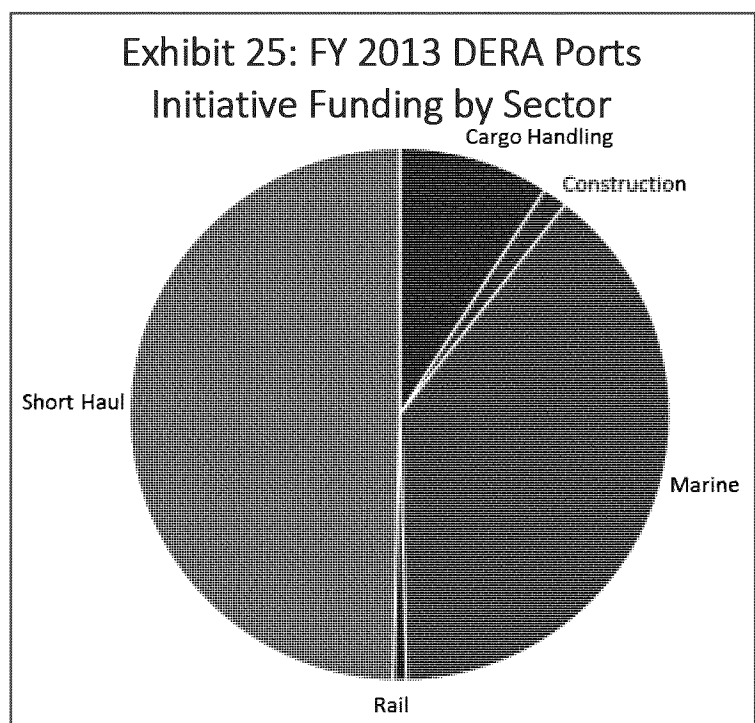
Section 5: DERA Ports Initiative

Ports play a significant role in the nation's transportation system and goods movement supply chain. Many ports are located in areas with high percentage of low income and minority populations who are often disproportionately impacted by diesel emissions associated with port activities. Ships and harbor craft are usually the largest contributors of diesel pollution at ports. Marine engines, cargo handling equipment, drayage trucks, and locomotives are also contributors of diesel pollution at ports. Port authorities, terminal operators and fleet owners, drayage truckers, and rail operators all have a role in helping to reduce diesel emissions at ports and surrounding communities. Reducing exposure to diesel exhaust in and around ports is important for public health and the environment.

In 2013, EPA initiated "A National Conversation on Ports" to exchange views and develop a shared understanding of the challenges and opportunities of ports and port communities. These meetings allowed EPA to hear directly from those whose lives are most closely tied to ports. These meetings culminated in the National Port Stakeholders Summit held in April, 2014.

Since 2008, fleets operating at marine and inland water ports have been a target fleet for DERA funding. EPA set aside \$4 million for the FY 2013 Ports RFP. This was the first time DERA funding had been used in a sector-specific RFP. Eligible entities included public port authorities with jurisdiction over transportation or air quality at a marine or inland water port located in an area of poor air quality.¹⁵ Community groups, local governments, terminal operators, shipping carriers, and other business entities involved in port operations were encouraged to partner with port authorities. EPA received eight applications requesting more than \$9 million in funding. EPA funded six projects that replaced drayage trucks, retrofitted cargo handling equipment, repowered a switcher locomotive, replaced older shuttle carriers with hybrids, and installed marine shore power infrastructure, see Exhibit 25. Matching funding contributed was \$7.8 million.

DERA FY 2013 Ports RFP projects reduced an estimated 3,100 lifetime tons of NO_x; 100 tons of PM; 150 tons of HC; 300 tons of CO; and 30,100 tons of CO₂. These projects also saved more than 2.6 million gallons of fuel.



Lessons Learned and Looking Ahead

Ports are critical for commerce and are a keystone for economic growth in the U.S. However, they often can be a growing source of pollution, including greenhouse gases and air pollution. Over 41 million people in the U.S.—roughly one in eight—are exposed to air pollution coming from port operations, and as a result, are at higher risk of developing asthma, heart disease, and other health problems. A high concentration of legacy fleets operate in and around ports. Diesel emissions from these fleets pose a number of health risks to the neighboring population. Equipment and vehicles used at ports also contribute to our nation’s greenhouse gas emissions. Ports can significantly reduce these harmful emissions by implementing newer technologies and changing key practices.

Ports and goods movement will remain a priority for the EPA and the DERA program. This funding has been instrumental in furthering emissions reductions through clean diesel projects located at ports and goods movement hubs. EPA will continue to build on the commitment to achieve cleaner air quality at ports by providing funding opportunities through the Diesel Emissions Reduction Act (DERA) program.

In addition, EPA has launched a Ports Initiative designed to support ports, communities and other stakeholders in taking on this challenge and finding common sense solutions that protect local communities and port workers from harmful air emissions while also reducing the greenhouse gas emissions that contribute to climate change. EPA is organizing a group of industry, community, State and local government experts, under the Clean Air Act Advisory Committee, dedicated to providing EPA with advice and insight on strategies and solutions that will advance emissions reductions to protect the air in communities near ports. Throughout this process stakeholders have expressed the importance of the DERA program in reducing emissions from the legacy fleet of diesel engines. Recommendations from this group are expected in 2016.

Looking Ahead for the DERA Program

Despite EPA's stringent standards for new on-highway and nonroad engines, EPA estimates that approximately 1.5 million engines from the legacy fleet will still remain in use in the year 2030. These engines will continue to affect the environment and public health and will not be touched by fleet turnover. Some of these engines will be decades old, pre-dating modern engine technology, yet still in use. In fact, EPA estimates that in 2025, mobiles sources will still make up about 45% of total NO_x sources, with the legacy fleet portion about 15%. In addition, the legacy fleet will contribute about 20% of the direct PM emissions from mobile sources in the year 2025. The DERA program is designed to target removal and replacement of these remaining engines of the legacy fleet to protect public health and the environment.

DERA funding has reduced 14,700 tons of PM and 335,200 tons of NO_x since the first grants in 2008. These emission reductions have saved billions in health care costs. DERA projects have retrofitted or replaced nearly 73,000 engines in the nation's legacy fleet. Diesel engines are long-lasting and many pre-date the EPA's stricter emissions standards. DERA funding is necessary to address these engines that emit higher levels of diesel exhaust and contribute to poor air quality. Without clean diesel funding, these engines will continue to operate. DERA funding helps promote fleet turnover, which can have major health benefits for communities surrounding ports, rail yards, distribution centers, and schools. The Diesel Emissions Reduction Act is currently authorized through 2016.



Photo courtesy of Sara Bartholomew, USEPA

As the program looks ahead to the challenges of cleaner movement of goods through the

nation's supply chain, reducing black carbon pollution, and assisting environmentally challenged communities, DERA will continue to follow its guiding principles for all future implementation:

- Target areas and populations with disproportionate levels of exposure to diesel exhaust while maximizing cost-effectiveness.
- Prioritize children's health with a goal of every child riding to school in a bus that meets the latest on-highway standards.
- Target projects that reduce emissions from engines involved in goods movements and freight and frequently found operating at ports.
- Increase greenhouse gas and black carbon reductions from DERA projects while continuing to reduce particulate matter and other criteria pollutants.
- Design each DERA program opportunity to fund the most beneficial projects and maximize cost-effectiveness.
- Continue to reduce pollution from diesel engines by partnering with key stakeholders.
- Provide assistance to state and local governments in the development of their own clean diesel programs.
- Continue verifying performance of emission reduction technologies in the field.
- Maximize health benefits from clean diesel projects.

Appendix A: National Program Evaluation Criteria

- Project summary and overall approach
- Results – Outcomes and Outputs
- Programmatic priorities
 - Location
 - Diesel reduction effectiveness
 - Maximization of public health benefits
 - Utilization of community based multi-stakeholder collaborative process
 - Conservation of diesel fuel
- Regional Significance
- Past performance – Programmatic capability and reporting on results
- Staff expertise/qualifications
- Budget/resources
- Past expenditure of awarded grant funds
- Applicant fleet description

For the Recovery Act grant competition, EPA used the same criteria but also took job creation/retention and “shovel-ready” projects into consideration.

For more detailed information about the Request for Proposals, please see <http://epa.gov/cleandiesel/prgnational.htm>.

Appendix B: DERA Projects and Case Studies

Complete list of DERA and ARRA-funded national competitive projects:

<http://epa.gov/cleandiesel/projects-national.htm>

Complete list of Tribal projects: <http://epa.gov/cleandiesel/projects-tribal.htm>

Complete list of Emerging Technology projects: <http://epa.gov/cleandiesel/projects-emerge.htm>

Complete list of SmartWay Finance projects: <http://epa.gov/cleandiesel/projects-finance.htm>

Complete list of FY 2013 Ports RFP projects: <http://www2.epa.gov/ports-initiative/funding-projects-improve-air-quality-ports#awarded2013>

DERA project highlights: <http://epa.gov/cleandiesel/projects/>

FY 2008-2011 State Allocations: <http://epa.gov/cleandiesel/prgstate-alloc.htm#2008-2011>

FY 2012-2013 State Allocations: <http://epa.gov/cleandiesel/prgstate-alloc.htm>

List of 2012 National Clean Diesel Rebate Program school bus projects:

<http://epa.gov/cleandiesel/dera-rebate-schoolbus.htm#2012>

List of 2013 National Clean Diesel Rebate Program construction projects:

<http://epa.gov/cleandiesel/dera-rebate-construction.htm#selected>

¹ For FY 2011, the State Clean Diesel Program results are actuals and the National Clean Diesel Program results are estimates. For more detailed final information on the FY 2008 grants, please see the *Second Report to Congress: Highlights of the Diesel Emissions Reduction Program*, EPA 420-R-12-031 from December 2012. See the *Report to Congress: Highlights of the Diesel Emissions Reduction Program*, EPA 420-R-09-006 from August 2009 for the First Report on the DERA program.

² PM_{2.5} will be referred to as PM for the rest of this Report.

³ EPA estimates that the total present value of health benefits from the emission reductions between the Recovery Act and FY 2013 range from \$3.0 billion to \$11 billion (in 2014 dollars; range reflects the use of both a 3 and 7 percent discount rate and the valuation of premature mortality derived from either the American Cancer Society cohort study (Krewski et al., 2009) or the Harvard Six-Cities study (Lepeule et al., 2012)). Benefits calculated using EPA's PM_{2.5} benefit per ton values, which monetize a suite of PM-related health impacts including premature mortality, hospital admissions, emergency room visits, and work loss days. Please refer to the benefit per ton Technical Support Document for more information. US EPA, (2013). Technical Support Document: Estimating the Benefit per Ton of Reducing PM_{2.5} Precursors from 17 Sectors. Office of Air Quality Planning and Standards. Research Triangle Park. January. The document can be found here: <http://www2.epa.gov/sites/production/files/2014-10/documents/sourceapportionmentbpttsd.pdf> (accessed 7/24/2015).

⁴ EPA estimates that the emission reductions achieved over the lifetime of the affected engines will help avoid between 750 and 1,700 premature deaths. Estimates of premature mortality avoided were calculated using PM-related incidence per ton estimates presented in the benefit per ton Technical Support Document

(referenced above). The range of premature mortality avoided is derived from either the American Cancer Society cohort study (Krewski et al., 2009) or the Harvard Six-Cities study (Lepeule et al., 2012).

- ⁵ Many grant recipients installed more than one technology on each vehicle, so the total number of technologies exceeds the 58,815 vehicles affected figure stated above.
- ⁶ This estimate was created according to the MOVES and NONROAD models. Data based on a projected 10 percent fleet turnover rate from EPA modeling.
- ⁷ The percentage of projects taking place in FY 2009-2013 in non-attainment areas was calculated using the EPA Office of Air and Radiation's most recent National Ambient Air Quality Standards, which can be found at www.epa.gov/air/criteria.html and NATA areas are places where all or part of the population is exposed to more than 2.0 µg/m³ of diesel particulate matter emissions in EPA's 2005 National-Scale Air Toxics Assessment found at: <http://www.epa.gov/airtoxics/natamain/>.
- ⁸ The cumulative totals were created by adding the actual results from FY 2008 from the Second Report to Congress to the actual and estimated results covered in this Report from the Recovery Act to FY 2013.
- ⁹ The state program automatically receives 30% of an appropriation, so the national component received 70% of the 2009/2010 program, which amounted to \$84 million. The national competitive program received \$64 million while the remaining \$20 million went to the Emerging Technology and SmartWay Finance grant programs. In addition, some national funding in FY 2011 and the Recovery Act went to SmartWay Finance and Emerging Technology grants. These results are covered in another section.
- ¹⁰ McCoy, B. J., & Tanman, A. (2014). Emissions Performance and In-Use Durability of Retrofit After-Treatment Technologies. *SAE International Journal of Engines*, 7(4). DOI: 10.4271/2014-01-2347.
- ¹¹ Total funding for projects was \$294 million due to management and oversight funds.
- ¹² Recovery Act funding also included SmartWay Finance, Emerging Technology, and State grants, all of which are covered in their own sections below.
- ¹³ This jobs estimate was created based on self-reported information from Recovery Act grant recipients according to the Office of Management and Budget's guidance on job reporting.
- ¹⁴ FY 2008 state grant results are covered in this Report to Congress because they were combined with later fiscal years to create one continuous project.
- ¹⁵ Areas of poor air quality included areas:
 1. Designated as particulate matter or ozone nonattainment areas;
 2. Where all or part of the population is exposed to more than 2.0 µg/m³ of diesel particulate matter emissions in EPA's 2005 National-Scale Air Toxics Assessment; and/or
 3. That participated in EPA's Ozone or PM Advance Program.

To: McCabe, Janet[McCabe.Janet@epa.gov]
From: Dennis, Allison
Sent: Fri 10/2/2015 6:13:57 PM
Subject: e-copy of final NACAA TPs
NACAA McCabe Oct 5 2015 FINAL.docx

A printed version is included with the rest of your materials!

**NACAA Fall Membership Meeting
Face the Air Directors
Monday, Oct. 5, 9:30-11am**

Run of show:

- Bill Becker will introduce Janet
- Janet (ozone, CPP, refineries) 20 min
- Q&A/discussion 70 min

(Introduction)

- Thanks very much for the opportunity to talk with you today. We had a busy, exciting summer at EPA—fall is proving much the same. It's remarkable to think about everything that has happened since I spoke with all of you at your spring membership meeting only a few short months ago.
- Lately, as you might expect, my discussions with various groups have largely focused on the Clean Power Plan. But today, I would like to start off by sharing information about the new ozone standard, which I know is of great interest to you.
- I do have a couple of things I'd like to mention about the Clean Power Plan, and I'll also touch on the refineries rule we finalized last week.
- I'm keeping my remarks as brief as I can today so that we will have plenty of time for an exchange on the topics that you are most interested in. So, let's get started.

(Ozone NAAQS)

- I have to commend you on the timing of this meeting this year – you couldn't have planned it better as far as giving us a chance to talk

about the ozone NAAQS as soon as possible after its release.

- As I expect you are all well aware, on Thursday, EPA announced the final ozone NAAQS, which consists of a revised primary standard of 70 parts per billion.
- This strengthened standard will improve public health protection across the country and provide the adequate margin of safety that is required by law and that the science supports.
- The Administrator's decision to revise the standard was based on a review of thousands of scientific studies, consideration of the more than 430,000 public comments on the proposal, the advice of CASAC, and a review of the uncertainties that remain.
- We estimate that the 70 parts per billion standard will prevent
 - 160,000 missed school days,
 - 230,000 asthma attacks, and
 - up to 660 premature deaths per year in 2025.
- And that the benefits of meeting the standard will be worth from \$2.9 to \$5.9 billion dollars per year starting in 2025. These benefits outweigh the costs by as much as 4 to 1.
- I want to emphasize that the new standard is achievable. States will have the time and flexibility they need to plan for and meet the new standard; in fact, with rules that already exist, we expect that all but a few areas around the nation will meet it by 2025.
- We have made a lot of progress on ozone over the years, together as state and Federal partners. I think it's pretty remarkable that more than 90 percent of the areas originally identified as not meeting the ozone standards set in 1997 now meet them.

- Recognizing that you have significant workloads and resource constraints, the agency has provided an outline of how EPA will work with state, tribal, local and federal agencies to implement the updated standards in a way that maximizes common sense, flexibility and cost-effectiveness, while following the requirements of the Clean Air Act.
- We issued an *Implementation Memo* with the revised standards that outlines the agency's plans for addressing a variety of issues
- Here are some highlights of the Implementation Memo:
 - Guidance available to agencies;
 - The agency plans to propose rules and guidance over the next year to help states that have potential nonattainment areas implement the revised standards.
 - The agency also plans to update its Exceptional Events Rule, which outlines the requirements for excluding air quality data (including ozone data) from regulatory decisions if the data are affected by events outside an area's control, such as a wildfire or stratospheric intrusion.
 - In addition, EPA is developing guidance to address Exceptional Events Rule criteria for wildfires that could affect ozone concentrations. The agency anticipates receiving additional fire-related exceptional events demonstrations as climate change leads to increases in wildfires.
 - Designating areas;
 - As required by the Clean Air Act, EPA anticipates making

attainment/nonattainment designations for the revised standards by late 2017; those designations likely will be based on 2014-2016 air quality data.

- Background ozone:
 - We are aware about the concerns some have about background ozone levels.
 - It is unlikely that background ozone will affect a state's ability to meet the standard.
 - The Clean Air Act provides tools to help states with this issue.
 - EPA will hold a technical workshop as a forum for people to talk about background ozone.
- Interstate ozone transport;
- Ensuring major source permitting is effective and efficient;
- The challenges of reducing ozone in California;
- Managing monitoring networks;
- Community involvement;
- Multi-pollutant clean air planning;
- Emissions from wildland fires;
- Transportation planning; and
- The Ozone Advance Program.
- Working together, we can continue our progress, and in doing so, we will improve the health of millions of Americans.
- We will be holding a webinar on the 2015 ozone NAAQS on October 21st at 2pm.

- Obviously, more to come on this topic in the coming days and weeks, so stay tuned.

(CPP Introduction)

- I'd like to turn next to the Clean Power Plan, and I'll start off by saying again how much we have appreciated the chance to engage with NACAA throughout this multi-year process.

(CPP – Outreach)

- Since August, we have reached out to all 50 states, and every state has had multiple opportunities to hear from us and to ask questions.
- In addition to dozens of calls with states, tribes, communities, industry representatives, and elected officials, we have also held or participated in more than 10 widely-attended teleconferences about the Plan.
- Including the NACAA-AAPCA-ECOS technical teleconference series, which I'm really glad to see happening again.
- The first three calls have gone very well in large part because of the depth of the questions that you have been asking. EPA staff is especially appreciative of the NACAA work in putting these together. A special thanks to Bill for moderating and Phil Assmus for his important support. I'm hoping to join one or two of these calls later this month.
 - I also congratulate NACAA on the release of your Menu of Options document.
- EPA staff have responded to hundreds of questions about the final

rule, and questions continue to come to us through meetings, the Clean Power Plan website, the media, Congressional staff and other venues, and we are doing our best to help everyone better understand the Clean Power Plan.

(CPP - What We've Heard)

- We are hearing a lot of positive reactions; across the board, stakeholders are generally indicating that they feel that EPA listened to their views on the proposal and made changes in the final rule that address the major issues they had been concerned about.
- A few of the topics that we are hearing a lot from states about include:
 - Plan options and flexibilities to determine how they will implement the CPP,
 - Trading (for example, how existing trading programs will relate to new ones that are developed, “trading ready” provisions in plans, emission rate credits, trading between rate- and mass-based states),
 - Energy efficiency and renewable energy projects generally and in the context of the Clean Energy Incentive Program.
- States have continued to absorb the contents of the CPP, and we have quickly moved from basic discussions to more technical, specific conversations as states consider their options moving forward.
- This shift is welcome and we look forward to working closely with you to sort through your state’s unique set of issues and considerations.

(CPP – Initial Submittal)

- States are asking about the Initial Submittal, due in September 2016, and what is required for that.
- There are really just three elements to that submittal, and we believe any state moving forward with a planning process will be able to provide them, i.e.:
 1. A discussion of where the state is in its planning process and what approach it thinks it will be taking,
 2. A description of the public process the state has been using and will continue to use as it develops its plan, and
 3. An explanation of why it needs additional time (such as needed legislation, rulemaking process, etc.)
- We have been getting questions about the meaningful engagement component of the initial submittal. Here are a few things to consider:
 - States are required to describe the opportunity for public comment, including meaningful stakeholder engagement and outreach to vulnerable communities, in the initial submittal.
 - Holding a public hearing is not required for the **initial** submittal – but of course the **final** plan DOES require a public hearing.
 - Public involvement can take many forms, including a mixture of webinars, public hearings, community meetings or other approaches.
 - States have been conducting these types of meaningful engagements for years as part of their implementation of other CAA programs and it is not our intention to re-invent what states

have been doing for all this time.

- My final thought on the initial submittal is that our guidance on the initial submittal is under development and will be sent to the Regions in the near future.

(CPP – Tools and Resources)

- EPA is offering assistance and a variety of tools and resources to support the work of states and stakeholders.
- States have asked for clarification and further information in several areas, including, for example,
 - how to choose the best state plan approach for their particular circumstances,
 - what different options states should consider in designing plans that allow for multi-state coordination or trading,
 - how to sufficiently address equivalence/leakage, and
 - what is required for an initial plan submittal.
- We are working to provide more information on each of these topics.
- To help states and stakeholders understand the Clean Power Plan and to further support states' efforts to create plans that suit their needs, EPA has developed a variety of tools and resources, which are largely available on our website (epa.gov/cleanpowerplan).
- Our online toolbox for states includes links to many EPA and other federal resources that can help states determine the most cost-effective approaches to reducing carbon pollution from the power sector.
 - These resources include:

- combined heat and power options,
 - resources to estimate potential energy efficiency and renewable energy impacts, and
 - information on existing state programs and utility incentives for energy efficiency, among others.
- We are also working to provide products and services (e.g., tracking systems, trading assistance) to states to facilitate consistent implementation.
- We will be providing training and webinars with more details about specific topics.
- We will also provide resources such as an applicability diagram, guidance to help states prepare emission inventories, plan development checklists, etc.

(CPP Closing)

- Much more to come as we continue together to implement the Clean Power Plan.
- EPA expects the final rule will be published in the Federal Register no later than middle to late October. We will accept comments on the proposed federal plan for 90 days following publication in the Federal Register and will hold public hearings on the proposed federal plan, too.
- In sum, we recognize the final CPP is voluminous and complex.
- States need time to read, formulate question, and gain a better understanding of the final CPP.
- We believe we are at a point in time where states are gaining a good

understanding of the final CPP and should be starting to engage other states and stakeholders (i.e., EGUs, PUC, etc.) to discuss potential plan approaches.

- The Federal Plan proposal and the two model rules should serve as an indication to states of the approach EPA thinks is most effective/efficient for compliance with the CPP (trading program).
- Before I move on, I have a couple of requests for this group:
 - We are interested in hearing what types of products would be most helpful to states as they develop their plans, and
 - I encourage you to read and comment on our draft Evaluation, Measurement and Verification Guidance and the proposed Federal Plan. We're interested in hearing your thoughts on the role of energy efficiency and renewable energy in particular.

(Refineries)

- I'd like to take a minute or two to briefly mention the refineries rule, which we announced last week.
- The rule finalizes our risk and technology review and new source performance standards.
- There are approximately 150 petroleum refineries in the United States, and many are located near communities; our analysis has shown that low income and minority populations are twice as likely to live near the fence-line of a refinery than other Americans.
- These communities have a strong interest in knowing more about the emissions coming from refineries in their neighborhoods, so this rule responds to that need with the **first ever industry-wide requirements**

for fence-line monitoring. The Administrator has referred to this as a first-of-its-kind “neighborhood watch” for refinery pollution.

- Communities wanted these monitoring data to be managed by EPA and made publicly available:
 - We will be developing a database to house the data and make the information available,
 - We will also work to empower communities to understand and interpret what they’re seeing.
 - As we have seen with other programs that require the public posting of data, transparency can lead to greater responsibility and less pollution.
- The rule requires that corrective actions be taken when a problem is detected, and it’s also important to note that the rule includes incentives for facilities to fix things immediately before they become pollution problems.
- Communities have been concerned about “upsets” at refineries, and the rule addresses that concern with provisions that will nearly eliminate smoking flare emissions and releases by pressure release devices during upsets, and it requires some new or additional controls for certain sources.
- We will be holding a webinar on this final action for state, local, and tribal air agencies on **Thursday, October 15th**.
- So those are a few of the highlights of the refineries rule.

(Closing)

- I hope that brings you up to speed on these important and all very

recent actions; I'd really like to open the floor to hear your questions now.

BACKGROUND:

Oil and Gas

- The President's Climate Action Plan also instructed EPA to address methane emissions. In mid-August we proposed a suite of oil and gas rules and guidelines that will help combat climate change, reduce air pollution, and provide greater certainty to industry about permitting requirements.
 - Proposed updates to New Source Performance Standards,
 - Issued draft Control Techniques Guidelines (CTGs),
 - Proposed a "Source Determination Rule," and
 - Proposed a Federal Implementation Plan for EPA's Indian Country Minor New Source Review program.
- EPA will take public comment on the proposal until November 17th. The agency anticipates issuing a final rule in Spring 2016.

Methane Challenge

- In late July, we released for comment our new Natural Gas Star Methane Challenge program.
- EPA is collecting feedback through October 13, 2015, and will launch the Methane Challenge Program by the end of the year.
- Instructions for how to provide feedback are available on the Natural Gas STAR website.

Greenhouse Gas Permitting

- In April 2015, the D.C. Circuit confirmed EPA's understanding of the Supreme Court's decision in *Utility Air Regulatory Group v. EPA*:
 - The court vacated only those regulations that implement Step 2 of the Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule, and required EPA to study whether it was feasible to take additional steps to phase in permitting requirements for smaller sources.
 - The court did not vacate the EPA regulations that implement Step 1 of the Tailoring Rule and preserves the ongoing application of the Best Available Control Technology (BACT) requirement to greenhouse gas emissions from sources that are required to obtain a PSD permit based on non-greenhouse gas emissions ("anyway sources").
- Following that decision, EPA issued a final rule to revise the PSD regulations to enable EPA to rescind EPA-issued PSD permits and then issued a final rule to remove certain provisions from PSD and Title V that had been vacated by the D.C. Circuit.
- We are currently working on a proposed rule to establish a significant emissions rate for greenhouse gases under the PSD program.

SO₂ - Implementation of 2010 Standard

- We are still in the process of designating areas for the 2010 SO₂ NAAQS. We initially designated 29 areas in 16 states, and state plans demonstrating how these areas would meet the standard were due by April 4, 2015. Per a recent court decision, we must complete the

remainder of the designations on a schedule through 2020, which most designations happening in the next year or two.

- We recently finalized the data requirements rule that provides requirements for states to:
 - characterize current air quality in areas with large sources of SO₂ emissions,
 - provide these data to the EPA; the data will inform future rounds of designations for the 2010 standard through 2020.

PM_{2.5} – Implementation of 2012 Standard

- Designations are now final, and 9 areas in 4 states were designated nonattainment, while 3 states/territories and 3 areas were designated as unclassifiable. Final designations were deferred for 2 states and 3 areas until we have additional monitoring data.
- We proposed a SIP requirements rule to guide states as they implement the standard; this rule will be another action that we expect to finalize in the coming year.
- Final designations include:
 - 9 nonattainment areas in 4 states (CA, ID, OH, PA); and
 - 3 states/territories and 3 areas designated unclassifiable: PR, USVI, IL, Chicago, Louisville, KY-IN, St. Louis, MO-IL.
- Final designations were deferred for 2 states and 3 areas:
 - FL, TN, Atlanta, GA, Brunswick, GA, Albany, GA. EPA will complete designations for these remaining deferred areas when additional complete and quality assured air quality data becomes available.
 - For all of the areas except Florida, the EPA expects that additional

monitoring data collected after 2013 will provide the requisite amount of valid data needed for designations.

- EPA only recently identified potential data quality issues that may affect the validity of fine particle pollution monitoring data for the state of Florida. We need additional time to further evaluate Florida's data.

MATS

- This summer, the Supreme Court held that EPA should have considered costs at an earlier step in the rulemaking process for MATS.
- The decision, although unfortunate, was narrow. The Court did not limit EPA's authority to control emissions of toxic pollutants from power plants or our decision to regulate in this instance, other than holding that cost must be considered.
- We're working to address this issue, but in the meantime the rule remains in effect and the majority of power plants are either in compliance or well on their way.
- The court's decision under section 112 does not impact rules and programs under other sections of the Clean Air Act.
- Over the past three years the power sector has moved toward cleaner generation.
- Throughout the compliance period, EPA has engaged extensively with grid planners (such as Regional Transmission Organizations), utilities, DOE, and FERC.

TRANSPORT

- In July, the U.S. Court of Appeals for the D.C. Circuit issued its opinion

on the remaining issues raised with respect to the Cross State Air Pollution Rule (CSAPR), and EPA is pleased that the court decision keeps CSAPR in place. We are determining an appropriate further course of action in response to certain aspects of that opinion.

- Together with states and stakeholders, we have been working to develop a path forward to improve ozone air quality and address transport for the 2008 ozone standards.
- EPA is also planning to develop and promulgate FIPs, if necessary, by issuing a proposal later this year. It is our intention that any federal rule developed to satisfy this obligation would provide ample opportunity for states to pursue alternatives through the SIP process.
- States and EPA have been thinking about appropriate actions to address interstate ozone transport for the 2008 ozone standards. We held a workshop with states in NC on April 8th to talk about these issues.
- Under the CSAPR framework, we will be identifying emission reductions necessary to prevent upwind states from contributing significantly to the downwind air quality problems.
- We are working on assessing power sector NOX controls and ozone season NOX mitigation potential with attention to actions that are cost-effective and can be taken quickly.
 - States and EPA have a shared understanding that actions should be taken to address interstate ozone transport for the 2008 NAAQS under the "good neighbor" provision of the Clean Air Act.
 - EPA believes that the CSAPR framework could be used to:

- Determine appropriate actions to address interstate ozone transport for the 2008 NAAQS (i.e., identifying problem areas, the states that contribute to them, and appropriate emission reductions)
- Implement NOX reductions via the CSAPR ozone season limited-interstate trading program (i.e., states could lower their CSAPR ozone season NOX budgets and variability limits).

176A Petition -- Background

- The statutory deadline for EPA to respond to the petition from the 9 states was June 9, 2015.
- We have not yet proposed a response, but are continuing to do the work necessary to support one.
- More broadly, EPA is actively engaged with states to address interstate transport for the 2008 8-hour ozone NAAQS. This effort includes the development of a Federal Implementation Plan for ozone transport (CSASPR update) to be proposed later this year.
 - The modeling to support that proposed rule could also help inform EPA's petition response.

Additional detail:

- In December 2013, 9 states (CT, DE, MD, MA, NH, NY, RI, PA and VT) filed a petition that requests that EPA add 8 states and the remainder of VA to the current Ozone Transport Region (OTR) that was established under section 184 of the CAA. Currently only the DC metro area of VA is in the OTR.
 - The 8 states are: IL, IN, KY, MI, NC, OH, TN, VA, WV
- The petitioners ask EPA to determine that air pollutants from upwind states (non-OTR) are significantly contributing to a violation of the 2008 ozone NAAQS within their jurisdictions. They believe the expansion is warranted so that the states can work together to address ozone transport for the NAAQS.
- Petition concludes that there needs to be a reduction in NO_x from OTR and non-OTR states and predicts that it will take 6 to 10 years to implement the control measures.

- The supporting technical information does not focus on VOC reductions.

To: McCabe, Janet[McCabe.Janet@epa.gov]
From: Davis, Alison
Sent: Fri 10/2/2015 12:09:46 AM
Subject: Re: !!

Thank you Janet. It is a pleasure working with you.

Sent from my iPhone

On Oct 1, 2015, at 6:22 PM, McCabe, Janet <McCabe.Janet@epa.gov> wrote:

This is not my “official” thank you note to the entire multi-office team, but a quick one to a smaller group of people who really delivered the ozone rule. I can’t express in words my admiration for your skill, smarts, judgment, and expertise and patience in working with me and the Administrator so that she could make what I still think is THE hardest decision an EPA Administrator has to make in a way she felt 100% good about. This is what we are all about, and I’m so proud to be one of you today.

Please, please take the weekend off!

--Janet

To: McCabe, Janet[McCabe.Janet@epa.gov]
Cc: Cyran, Carissa[Cyran.Carissa@epa.gov]
From: Niebling, William
Sent: Thur 10/1/2015 11:09:47 PM
Subject: FW: Ozone Letter for Janet review
Smith Ozone comms 10-1-15.docx

Janet, just fyi in case you prefer electronic.

From: Lubetsky, Jonathan
Sent: Thursday, October 01, 2015 2:32 PM
To: Cyran, Carissa
Cc: Niebling, William
Subject: Ozone Letter for Janet review

As Will mentioned, I am attaching a draft letter for Janet to review tonight.

Thank you!

Jonathan S. Lubetsky

Office of Air Policy and Program Support

U.S. EPA | Office of Air and Radiation

William J. Clinton North Room 5442S

202.564.3166

Learn about the Clean Air Act: <http://www2.epa.gov/clean-air-act-overview>

To: Rupp, Mark[Rupp.Mark@epa.gov]
Cc: McCabe, Janet[McCabe.Janet@epa.gov]
From: Millett, John
Sent: Thur 10/1/2015 10:04:45 PM
Subject: Re: New Ozone Std Is 70 ppb - EPA Fact Sheets Attached

It was 11:39 mountain time. Which was almost immediately after Nate sent his note to the regions. PADs and alternates, and adds and deputies lists. These are the same files he forwarded with explicit instructions not to forward to anyone outside an EPA building. Grrr.

John Millett
202.510.1822

On Oct 1, 2015, at 5:04 PM, Rupp, Mark <Rupp.Mark@epa.gov> wrote:

Begin forwarded message:

From: "Rudolph - CDPHE, Martha" <martha.rudolph@state.co.us>
Date: October 1, 2015 at 2:12:51 PM EDT
To: "Rupp, Mark" <Rupp.Mark@epa.gov>
Subject: Fwd: New Ozone Std Is 70 ppb - EPA Fact Sheets Attached

FYI

Martha E. Rudolph

Director of Environmental Programs



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4300 Cherry Creek Drive South, Denver, CO 80246-1530
martha.rudolph@state.co.us | www.colorado.gov/cdphe

----- Forwarded message -----

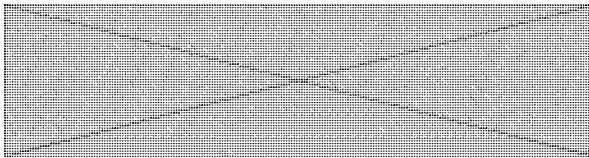
From: Allison - CDPHE, William <william.allison@state.co.us>

Date: Thu, Oct 1, 2015 at 11:39 AM

Subject: Fwd: New Ozone Std Is 70 ppb - EPA Fact Sheets Attached

To: Larry Wolk - CDPHE <larry.wolk@state.co.us>, Martha Rudolph - CDPHE <martha.rudolph@state.co.us>

William C. Allison V
Director



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----- Forwarded message -----

From: **Nancy Kruger** <nkruger@4cleanair.org>

Date: Thu, Oct 1, 2015 at 11:35 AM

Subject: New Ozone Std Is 70 ppb - EPA Fact Sheets Attached

To: Nancy Kruger <nkruger@4cleanair.org>

To: NACAA Air Directors

NACAA Criteria Pollutants Committee

NACAA Monitoring Committee

NACAA Permitting and NSR Committee

NACAA Public Outreach Committee

Attached is a set of fact sheets from EPA on the new ozone standard, which EPA has set at 70 parts per billion (primary and secondary). Below is EPA's press release.

The agency will hold a press call at 2:30 PM ET and then will start a series of stakeholder calls beginning with state, local and tribal governments at 3:30 PM Eastern (please see our previous message about the call). As a reminder, the call-in number and access code are **Conference Code**

CONTACT:

Enesta Jones

Jones.enesta@epa.gov

[202-564-7873](tel:202-564-7873)

[202-564-4355](tel:202-564-4355)

FOR IMMEDIATE RELEASE

October 1, 2015

EPA Strengthens Ozone Standards to Protect Public Health

Science-based standards to reduce sick days, asthma attacks, emergency room visits, greatly outweigh costs

WASHINGTON – Based on extensive scientific evidence on effects that ground-level ozone pollution, or smog, has on public health and welfare, the U.S. Environmental Protection Agency (EPA) has strengthened the National Ambient Air Quality Standards (NAAQS) for ground-level ozone to 70 parts per billion (ppb) from 75 ppb to protect public health. The updated standards will reduce Americans' exposure to ozone, improving public health protection, particularly for at risk groups including children, older adults, and people of all ages who have lung diseases such as asthma. Ground-level ozone forms when nitrogen oxides (NOx) and volatile organic compounds (VOCs) react in the air.

"Put simply – ozone pollution means it hurts to breathe for those most vulnerable: our kids, our elderly and those suffering from heart and lung ailments," said EPA Administrator Gina McCarthy. "Our job is to set science-backed standards that protect the health of the American

people. Today's action is one of the most important measures we can take for improving public health, reducing the costs of illness and protecting our children's health."

EPA examined nearly 2,300 studies in this review of the ozone standards including more than 1,000 new studies published since the last review of the standards in 2008. Scientific evidence shows that ozone can cause a number of harmful effects on the respiratory system, including difficulty breathing and inflammation of the airways. The revised standards will significantly improve public health protection, resulting in fewer premature deaths, and thousands fewer missed school and work days and asthma attacks. For people with lung diseases like COPD (chronic obstructive pulmonary disease) or the 23 million Americans and 6 million children living with asthma, these effects can aggravate their diseases, leading to increased medication use, emergency room visits and hospital admissions. Evidence also indicates that long-term exposure to ozone is likely to be one of many causes of asthma development. And studies show that ozone exposure is likely to cause premature death. The public health benefits of the updated standards, estimated at \$2.9 to 5.9 billion annually in 2025, outweigh the estimated annual costs of \$1.4 billion.

Local communities, states, and the federal government have made substantial progress in reducing ground-level ozone. Nationally, from 1980 to 2014, average ozone levels have fallen 33 percent, while the economy has continued to grow. And by 2025, EPA projects that existing rules and programs will bring the vast majority of the remaining counties into compliance. Advances in pollution control technology for vehicles and industry along with other emission reduction standards, including "Tier 3" clean vehicle and fuels standards, the Clean Power Plan and the Mercury and Air Toxics Standards, will significantly cut smog-forming emissions, helping states meet today's updated ozone standards.

To ensure that people are alerted when ozone reaches unhealthy levels, EPA is extending the ozone monitoring season for 32 states and the District of Columbia. This is particularly important for at-risk groups, including children and people with asthma because it will provide information so families can take steps to protect their health on smoggy days.

EPA also is strengthening the "secondary ozone standard" to 70 ppb, which will improve protection for trees, plants and ecosystems. New studies since the last review of the standards add to evidence showing that repeated exposure to ozone reduces growth and has other harmful effects on plants and trees. These types of effects have the potential to harm ecosystems and the benefits they provide.

The Clean Air Act provides states with time to meet the standards. Depending on the severity of their ozone problem, areas would have until between 2020 and 2037 to meet the standards.

The Clean Air Act requires EPA to review the ozone standards every five years to determine whether they should be revised in light of the latest science. Today's action comes after a thorough review and public comment process. The agency received more than 430,000 written comments on the proposed standards and held three public hearings.

More information: <http://www3.epa.gov/ozonepollution/>

To view the video: <https://m.youtube.com/watch?v=Y6chlLb59zA>

Nancy Kruger

Deputy Director

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<2015 Ozone AQI and Monitoring Changes Fact sheet FINAL.pdf>

<2015 Ozone Standards Overview Fact Sheet FINAL.pdf>

<Ozone Basics FINAL.pdf>

<External - final O3 by the numbers FINAL.pdf>

<Ozone and Children's Health FINAL.pdf>

To: McCabe, Janet[McCabe.Janet@epa.gov]; Millett, John[Millett.John@epa.gov]
From: Rupp, Mark
Sent: Thur 10/1/2015 9:04:27 PM
Subject: Fwd: New Ozone Std Is 70 ppb - EPA Fact Sheets Attached
[2015 Ozone AQI and Monitoring Changes Fact sheet FINAL.pdf](#)
[ATT00001.htm](#)
[2015 Ozone Standards Overview Fact Sheet FINAL.pdf](#)
[ATT00002.htm](#)
[Ozone Basics FINAL.pdf](#)
[ATT00003.htm](#)
[External - final O3 by the numbers FINAL.pdf](#)
[ATT00004.htm](#)
[Ozone and Children's Health FINAL.pdf](#)
[ATT00005.htm](#)

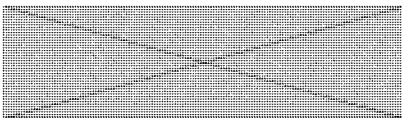
Begin forwarded message:

From: "Rudolph - CDPHE, Martha" <martha.rudolph@state.co.us>
Date: October 1, 2015 at 2:12:51 PM EDT
To: "Rupp, Mark" <Rupp.Mark@epa.gov>
Subject: Fwd: New Ozone Std Is 70 ppb - EPA Fact Sheets Attached

FYI

Martha E. Rudolph

Director of Environmental Programs



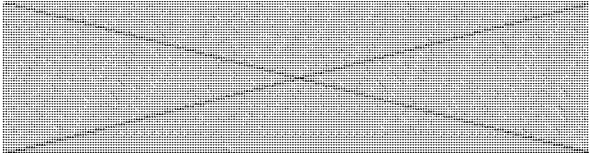
P 303.692.3397 | F 303.691.7702
4300 Cherry Creek Drive South, Denver, CO 80246-1530
martha.rudolph@state.co.us | www.colorado.gov/cdphe

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Date: Thu, Oct 1, 2015 at 11:39 AM
Subject: Fwd: New Ozone Std Is 70 ppb - EPA Fact Sheets Attached
To: Larry Wolk - CDPHE <larry.wolk@state.co.us>, Martha Rudolph - CDPHE

<martha.rudolph@state.co.us>

William C. Allison V
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Date: Thu, Oct 1, 2015 at 11:35 AM
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To: Nancy Kruger <nkruger@4cleanair.org>

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Eastern (please see our previous message about the call). As a reminder, the call-in number and access code are (877) 290-8017, 50586244.

CONTACT:

Enesta Jones

Jones.enesta@epa.gov

202-564-7873

202-564-4355

FOR IMMEDIATE RELEASE

October 1, 2015

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Science-based standards to reduce sick days, asthma attacks, emergency room visits, greatly outweigh costs

WASHINGTON – Based on extensive scientific evidence on effects that ground-level ozone pollution, or smog, has on public health and welfare, the U.S. Environmental Protection Agency (EPA) has strengthened the National Ambient Air Quality Standards (NAAQS) for ground-level ozone to 70 parts per billion (ppb) from 75 ppb to protect public health. The updated standards will reduce Americans' exposure to ozone, improving public health protection, particularly for at risk groups including children, older adults, and people of all ages who have lung diseases such as asthma. Ground-level ozone forms when nitrogen oxides (NOx) and volatile organic compounds (VOCs) react in the air.

"Put simply – ozone pollution means it hurts to breathe for those most vulnerable: our kids, our elderly and those suffering from heart and lung ailments," said EPA Administrator Gina McCarthy. "Our job is to set science-backed standards that protect the health of the American people. Today's action is one of the most important measures we can take for improving public health, reducing the costs of illness and protecting our children's health."

EPA examined nearly 2,300 studies in this review of the ozone standards including more than 1,000 new studies published since the last review of the standards in 2008. Scientific evidence shows that

ozone can cause a number of harmful effects on the respiratory system, including difficulty breathing and inflammation of the airways. The revised standards will significantly improve public health protection, resulting in fewer premature deaths, and thousands fewer missed school and work days and asthma attacks. For people with lung diseases like COPD (chronic obstructive pulmonary disease) or the 23 million Americans and 6 million children living with asthma, these effects can aggravate their diseases, leading to increased medication use, emergency room visits and hospital admissions. Evidence also indicates that long-term exposure to ozone is likely to be one of many causes of asthma development. And studies show that ozone exposure is likely to cause premature death. The public health benefits of the updated standards, estimated at \$2.9 to 5.9 billion annually in 2025, outweigh the estimated annual costs of \$1.4 billion.

Local communities, states, and the federal government have made substantial progress in reducing ground-level ozone. Nationally, from 1980 to 2014, average ozone levels have fallen 33 percent, while the economy has continued to grow. And by 2025, EPA projects that existing rules and programs will bring the vast majority of the remaining counties into compliance. Advances in pollution control technology for vehicles and industry along with other emission reduction standards, including "Tier 3" clean vehicle and fuels standards, the Clean Power Plan and the Mercury and Air Toxics Standards, will significantly cut smog-forming emissions, helping states meet today's updated ozone standards.

To ensure that people are alerted when ozone reaches unhealthy levels, EPA is extending the ozone monitoring season for 32 states and the District of Columbia. This is particularly important for at-risk groups, including children and people with asthma because it will provide information so families can take steps to protect their health on smoggy days.

EPA also is strengthening the "secondary ozone standard" to 70 ppb, which will improve protection for trees, plants and ecosystems. New studies since the last review of the standards add to evidence showing that repeated exposure to ozone reduces growth and has other harmful effects on plants and trees. These types of effects have the potential to harm ecosystems and the benefits they provide.

The Clean Air Act provides states with time to meet the standards. Depending on the severity of their ozone problem, areas would have until between 2020 and 2037 to meet the standards.

The Clean Air Act requires EPA to review the ozone standards every five years to determine whether they should be revised in light of the latest science. Today's action comes after a thorough review and public comment process. The agency received more than 430,000 written comments on the proposed standards and held three public hearings.

More information: <http://www3.epa.gov/ozonepollution/>

To view the video: <https://m.youtube.com/watch?v=Y6chlLb59zA>

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UPDATES TO THE AIR QUALITY INDEX (AQI) FOR OZONE AND OZONE MONITORING REQUIREMENTS

On Oct. 1, 2015, the U.S. Environmental Protection Agency (EPA) strengthened the nation's air quality standards for ground-level ozone to improve public health and environmental protection. The updated standards will improve air quality broadly across the country, and are particularly important for at-risk groups, which include children, people of all ages with asthma and other respiratory diseases; older adults; and people who are active outdoors, especially outdoor workers, among others. EPA also updated the Air Quality Index (AQI) for ozone and the ozone monitoring season in many states to help inform the public about daily air quality.

Highlights:

- EPA is updating the Air Quality Index (AQI) based on the strengthened ozone health standard, to provide the public with the most up-to-date information about air quality where they live.
- To ensure ozone is measured when it is likely to approach the level of the updated standards, the agency is updating the monitoring season in 32 states and the District of Columbia.
- EPA is updating requirements to modernize and streamline the Photochemical Assessment Monitoring Stations (PAMS) Network, which helps provide information on ozone formation and transport.
- The agency also is updating the Federal Reference Method for monitoring to include an additional method that is based on advanced technology and monitoring methods.

Informing the Public: Updates to the Air Quality Index

- The AQI is EPA's color-coded tool for telling the public how clean or polluted the air is, and recommending steps people can take, if necessary, to reduce their daily exposure to pollution. The index AQI converts ozone concentrations to a number on a scale from 0 to 500. This scale is used by cities and states across the country to report current and daily ozone concentrations and for daily ozone air quality forecasting.
- EPA is updating the breakpoints for each AQI category for ozone, based on the strengthened primary (health) ozone standard and information from the health studies examined as part of the review of the standard.
- The agency is setting the 100 value of the index at the 70 parts per billion (ppb), the level of the primary 8-hour ozone standard. An AQI of 100 is the upper end of the "Moderate" or

“Code Yellow” range, and marks the level above which EPA begins cautioning at-risk groups. The “Unhealthy for Sensitive Groups” or “Code Orange” range (AQI of 101-150) will begin at 71 ppb and will extend to 85 ppb.

- EPA is not changing the level at the top of the index (an AQI value of 500). This level is typically set equal to the Significant Harm Level, a level that represents imminent danger. The Significant Harm Level for ozone is 600 ppb, averaged over two hours. Some states, where air quality has at times previously reached levels dangerous to public health, are required to have contingency plans in place to avoid reaching this level.
- Cities with populations of 350,000 or more are required to report the AQI each day. But many more cities report the index and issue daily AQI forecasts as a public service.
- The updated AQI breakpoints are outlined in the table below. The new breakpoints will take effect 60 days after the final standards are published in the Federal Register, bringing updated air quality and health information to millions of people every day.

AQI Category	Index Values	Breakpoints in the 2008 AQI (ppb, 8-hour average)	Updated Breakpoints (ppb, 8-hour average)
Good	0 - 50	0-59	0-54
Moderate	51 - 100	60-75	55-70
Unhealthy for Sensitive Groups	101 – 150	76-95	71-85
Unhealthy	151 – 200	96-115	86-105
Very Unhealthy	201 – 300	116-374	106-200
Hazardous	301 –500	375 to the Significant Harm Level*	201 to the Significant Harm Level*

**The Significant Harm Level for ozone is 600 ppb, two-hour average*

Measuring Ozone When It Forms: Updated Monitoring Requirements

Extending the Ozone Monitoring Season

- Air quality monitors play a critical role in notifying the public when air quality is unhealthy. EPA requires ozone monitoring only during the time of year when weather conditions are

most favorable for ozone formation. This season varies by state: in some states with warmer climates, monitoring is required year-round; however, in states where the climate is colder, ozone monitoring is required for as little as four months during the summertime.

- EPA is updating the ozone monitoring season for 32 states and the District of Columbia. A review of all available monitoring data from 2010-2013 (including data from year-round air quality monitors) shows that ozone can be elevated earlier in the spring and last longer into the fall than some states previously were required to measure. Recently, in the west, ozone concentrations have been above the level of the standards even during the wintertime.
- Many states are already operating their ozone monitors longer than the required monitoring season. More than half of the nation's 1,300 ozone monitors currently are operated year-round. This includes monitors that are required to operate year-round, based on an area's ozone season, and monitors that are voluntarily operated year-round by states and other organizations.
- EPA is extending the ozone monitoring season, to ensure compliance with the 2008 and 2015 ozone standards, and to ensure citizens are alerted when ozone reaches levels of concern. This is particularly important for at-risk groups, which include children, people of all ages with asthma and other respiratory diseases; older adults; and people who are active outdoors, especially outdoor workers, among others.
- The monitoring season will be extended by one month for 22 of the 32 states that are required to monitor ozone and for the District of Columbia, with longer extensions in 10 other states. These include states where ozone can be elevated in the winter: Wyoming, where monitoring would be extended by two months; Colorado, where the ozone season would be extended by five months; and Utah, where monitoring would be required for an additional seven months. In addition, ozone monitors located at the multi-pollutant NCore monitoring sites will operate year-round.
- EPA Regional Administrators will still be allowed to approve changes to states' ozone monitoring seasons; however, this action revokes any previous monitoring season waivers.
- The expanded monitoring season requirements will become effective January 1, 2017.

Streamlining the Photochemical Assessment Monitoring Stations (PAMS) Network

- The PAMS network consists of multi-pollutant monitoring sites that are designed to measure ozone, the pollutants that form ozone, and meteorology in order to better understand ozone formation and to evaluate national and local ozone-reduction options.
- In the past, ozone nonattainment areas classified as serious, severe, or extreme were required to operate between two and four PAMS monitoring sites. During the past 30 years, however, both monitoring technology and priorities have changed. EPA is updating the PAMS monitoring requirements to modernize and streamline the network, based on a 2011

evaluation of the PAMS network, along with consultation with EPA's independent science advisers (the Clean Air Scientific Advisory Committee) and state air agencies.

- The changes include:
 - Requiring PAMS monitoring at existing NCore monitoring site in large urban areas with a population of 1,000,000 or more. (NCore is a multi-pollutant monitoring network for particles, gases and meteorology.) This change reduces the required number of PAMS sites while improving geographic distribution and reducing redundancy in the network.
 - Requiring states that operate PAMS sites to measure nitrogen dioxide, hourly speciated VOCs, three-hour averaged carbonyls on every third day and hourly averaged mixing height, in addition to a number of other meteorological parameters (e.g. wind speed and direction). EPA included a waiver option that will allow the use of less frequent, longer-averaged VOC measurements in limited situations.
 - Establishing Enhanced Monitoring Plans to allow monitoring agencies with moderate, serious, severe or extreme nonattainment areas and states in the Ozone Transport Region (OTR) the flexibility to determine and collect the additional data they need to better understand their ozone problems.
- States will need to comply with the new PAMS monitoring requirements at NCore sites by June 1, 2019. Enhanced Monitoring Plans will be due within two years after EPA designates nonattainment areas or by Oct. 1, 2019, whichever is later.

Modernizing Federal Reference Methods

- To determine whether an area is meeting the ozone standard, ozone monitoring data must be obtained using either a Federal Reference or Federal Equivalent monitoring method.
- A Federal Reference Method uses monitoring equipment and analytical techniques that together are considered the "gold standard" for measuring a pollutant in the air. EPA uses these methods to evaluate other equipment and alternative analytical methods, which vendors may make available for states to purchase. When approved, these methods are known as Federal Equivalent Methods.
- EPA is updating the Federal Reference Method for ozone to include an additional method that is based on advanced technology and monitoring methods. Current Federal Reference and Federal Equivalent ozone monitors will continue to meet EPA requirements under the change, so states are not required to replace their existing ozone monitors.

Where to Get More Information:

- To read the final rule and other fact sheets:
<http://www.epa.gov/ozonepollution/actions.html>
- For current air quality and next-day AQI forecasts: www.airnow.gov

- Download the free AirNow app and get current air quality and forecasts on the go. See www.airnow.gov for more information.

OVERVIEW OF EPA'S UPDATES TO THE AIR QUALITY STANDARDS FOR GROUND-LEVEL OZONE

On Oct. 1, 2015, the U.S. Environmental Protection Agency (EPA) strengthened the National Ambient Air Quality Standards (NAAQS) for ground-level ozone to 70 parts per billion (ppb), based on extensive scientific evidence about ozone's effects on public health and welfare. The updated standards will improve public health protection, particularly for at-risk groups including children, older adults, people of all ages who have lung diseases such as asthma, and people who are active outdoors, especially outdoor workers. They also will improve the health of trees, plants and ecosystems.

Highlights

- The updated health standard of 70 ppb will significantly reduce ozone air pollution and will provide an adequate margin of safety to protect at-risk groups.
- The standard is especially important for children and people with asthma, who are at increased risk from ozone exposure, and will prevent hundreds of thousands of asthma attacks.
- Public health benefits of the updated standards are significant – estimated at \$2.9 to 5.9 billion annually in 2025 and outweighing estimated costs of \$1.4 billion.
- EPA projections show the vast majority of U.S. counties will meet the standards by 2025 with federal and state rules and programs now in place or underway.
- EPA will work closely with states and tribes as they develop and implement clean air plans.

Updated Primary (Public Health) Standard

- Based on an expanded body of scientific evidence that includes thousands of studies on the effects of ozone on health, the EPA Administrator has concluded that the 2008 standard of 75 ppb is not requisite to protect public health with an adequate margin of safety, as required by law.
- As she determined what standard would provide that margin of safety, the Administrator considered the science, focusing on new studies that have become available since EPA last reviewed the standards in 2008. Those studies include new clinical studies, which provide the most certain evidence of health effects in adults. Those studies provide information clearly showing that ozone at 72 ppb can be harmful to healthy exercising adults.

- In addition, the Administrator examined results of analyses that look at people's exposure to ozone and how different levels of a revised standard would reduce risk. These analyses take into account people's activity patterns and how they are exposed to ozone in their daily lives.
- The Administrator focused on children's exposure -- particularly repeated exposures. Repeated exposures are important, because the more times children are exposed to ozone, the more likely they will experience serious health effects.
- Children are at increased risk from ozone exposure because their lungs are still developing, and they are more likely to be active outdoors when ozone levels are high. Children also are more likely than adults to have asthma.
- Combined, the results of the clinical studies and risk and exposure analyses show that a standard of 70 ppb will protect public health.
 - A standard of 70 ppb is below the level shown to cause adverse health effects in the clinical studies.
 - A standard of 70 ppb essentially eliminates exposures that have been shown to cause adverse health effects, protecting 99.5 percent of children from even single exposures to ozone at 70 ppb.
- Several clinical studies have shown effects in some adults following exposure to ozone at levels as low as 60 ppb. However, the evidence is uncertain that those effects are harmful or "adverse." In light of these uncertainties, the Administrator concluded that the science supported setting a standard that reduces exposure to ozone concentrations as low as 60 ppb but does not support a standard that eliminates them.
- The Administrator concluded that a standard of 70 ppb also will provide the adequate margin of safety the law requires. The updated standard will protect more than 98 percent of school-age children from repeated exposures to ozone concentrations as low as 60 ppb -- a 60 percent improvement over the current standard.
- The standard accomplishes this because of the way it is structured. Areas meeting the updated standard will see ozone concentrations below 70 ppb on almost all days -- and in many areas, on most days, concentrations will be even lower.

Protecting Public Health with an Adequate Margin of Safety

The Clean Air Act requires the EPA Administrator to set primary air quality standards to protect public health with an "adequate margin of safety," including the health of at-risk groups.

In making this judgment, the Administrator considers factors such as the nature and severity of health effects, the size of the at risk groups affected, and the degree of certainty and uncertainty in the science on ozone-related health effects. The law charges the Administrator with setting standards that are "requisite" -- neither more nor less stringent than necessary-- to accomplish this. The law does not require EPA to set primary standards at a zero-risk level.

The law requires EPA to review the standards -- and the science behind them -- every five years to determine whether changes are warranted. EPA last updated the standards in 2008.

- In selecting the level of the primary standard, the Administrator also considered advice from the agency's independent science advisors, the Clean Air Scientific Advisory Committee (CASAC), and she considered public comment on the proposed standards.
- The CASAC concluded that the science indicates the 2008 standard is not adequate to protect public health and that science supports a standard within a range of 70 ppb down to 60 ppb. The panel noted that the decision about what standard provides the adequate margin of safety required by the Clean Air Act is a policy judgment left to the Administrator.

Ozone and Health

- Scientific evidence shows that ozone can cause a number of harmful effects on the respiratory system, including difficulty breathing and inflammation of the airways. For people with lung diseases such as asthma and COPD (chronic obstructive pulmonary disease), these effects can aggravate their diseases, leading to increased medication use, emergency room visits and hospital admissions.
- Evidence also indicates that long-term exposure to ozone is likely to be one of many causes of asthma development. In addition, studies show that ozone exposure is likely to cause premature death.
- An estimated 23 million people have asthma in the U.S., including an estimated 6.1 million children. Asthma disproportionately affects children, families with lower incomes, and minorities, including Puerto Ricans, Native Americans/Alaska Natives and African-Americans.
- Children -- including teenagers -- are among those most at risk from ozone exposure for several reasons:
 - Their lungs are still developing (this occurs until adulthood);
 - They breathe more air per pound of body weight than adults. That means if the air contains ozone, children get a higher "dose" of ozone for their weight than adults;
 - They are active outside more than adults; and
 - They also are more likely to have asthma.

Benefits of the Final Standards Outweigh Costs

- Setting air quality standards is about protecting public health and the environment. By law, EPA cannot consider costs in doing that. States ultimately will decide the best mix of measures to meet the standards in their nonattainment areas. However, to inform the public, EPA analyzes the benefits and illustrative costs of implementing the standards as required by Executive Orders 12866 and 13563 and guidance from the White House Office of Management and Budget (OMB). In conducting these analyses, EPA uses widely accepted, peer-reviewed economic practices and follows OMB guidance on economic analyses.

- EPA estimates that meeting the 70 ppb standards will yield health benefits valued at \$2.9 to \$5.9 billion annually in 2025 nationwide outside of California. These annual benefits include the value of avoiding a range of harmful health effects, including:
 - 320 to 660 premature deaths
 - 230,000 asthma attacks in children
 - 160,000 days when kids miss school
 - 28,000 missed work days
 - 630 asthma-related emergency room visits
 - 340 cases of acute bronchitis in children
- EPA analyzed the benefits and costs for California separately, because a number of areas in California would have longer to meet the final standards, based on their ozone levels. A number of California counties likely would have attainment dates ranging from 2032 to late 2037.
- Benefits of meeting the standards in California add to the nationwide benefits after 2025, with the value of the additional benefits estimated at \$1.2 to \$2.1 billion annually after 2025. This includes the value of avoiding harmful health effects, including:
 - 120 to 220 premature deaths
 - 160,000 asthma attacks among children
 - 120,000 days when kids miss school
 - 5,300 missed work days
 - 380 asthma-related emergency room visits
 - 64 cases of acute bronchitis among children
- While states ultimately decide what measures to implement to meet a standard, EPA has developed illustrative measures in order to estimate costs. Those estimates are \$1.4 billion in 2025 nationwide except for California. Estimated costs in California post-2025 are \$800 million.
- Estimated net benefits range from \$1.5 to \$4.5 billion nationwide, except California. In California, net benefits are estimated at \$0.4 to \$1.3 billion.

Updated Secondary (Public Welfare) Standard

- EPA also is strengthening the secondary standard to improve protection for trees, plants and ecosystems. Like the primary, an area will meet the standard if the fourth-highest maximum daily 8-hour ozone concentration per year, averaged over three years, is equal to or less than 70 ppb.
- New studies since the last review of the standards add to evidence showing that exposure to ozone reduces growth and has other harmful effects on plants and trees. These types of effects have the potential to harm ecosystems and the benefits they provide.
- The agency has assessed ozone exposure to vegetation using a seasonal index known as a “W126 index.” A W126 index, named after portions of the equation used to calculate it, is a weighted index designed to reflect the cumulative exposures that can damage plants and trees during the consecutive three months in the growing season when daytime ozone concentrations are the highest and plant growth is most affected.

- EPA determined that a W126 index level of 17 parts per million-hours (ppm-hours) is sufficient to protect the public welfare based on the latest science.
- Analyses of data from air quality monitors show that an 8-hour standard of 70 ppb will limit cumulative, seasonal exposures above a W126 index level of 17 ppm-hours, averaged over three years.
- Based on consideration of all the information in this review, including CASAC advice and judgments about uncertainties, the Administrator concluded that an updated secondary standard of 70 ppb will provide the requisite protection for public welfare that the Clean Air Act requires.

Working With States and Tribes to Implement the Updated Standards

- Protecting air quality is a federal/state partnership, and EPA, states and tribes have made significant progress reducing ozone. Nationwide, ozone levels have dropped by a third since 1980 at monitor sites that track ozone trends. More than 90 percent of the areas originally designated as nonattainment for the 1997 ozone standard now meet that standard. And 2014 data show that more than a third of areas designated in 2012 as nonattainment for the 2008 ozone standards have air quality meeting that standard.
- EPA has a long history of working closely with states as they develop State Implementation Plans (SIPs) to reduce emissions of ozone precursors within individual jurisdictions. The agency will continue these collaborative efforts for the updated ozone standards, including working closely with states in reviewing air quality during the designations process, which is the first step in implementing the updated standards.
- Recognizing that its partners have significant workloads and resource constraints, the agency has provided an outline of how EPA will work with state, tribal, local and federal agencies to implement the updated standards in a way that maximizes common sense, flexibility and cost-effectiveness, while following the requirements of the Clean Air Act.
- The “Implementation Memo” issued with the revised standards, outlines the agency’s plans for addressing issues related to:

Addressing Background Ozone

“Background ozone” refers to ozone that forms from pollution from natural sources, such as wildfires or stratospheric intrusions, and ozone that forms from man-made pollution from sources outside the U.S.

On high ozone days, most ozone is produced locally or regionally from man-made domestic sources. Reducing emissions of the pollutants that form ozone will reduce ozone broadly across the country and improve public health protection.

EPA analyses do not indicate that background ozone will prevent areas from meeting the updated ozone standards of 70 ppb. The Clean Air Act and EPA policies provide a number of tools to help states in the limited number of areas where background ozone may contribute to high ozone concentrations on a few days. These tools may help areas avoid a nonattainment designation, or minimize attainment control requirements where appreciable levels of background ozone influence air quality.

- Guidance available to agencies;
 - Ensuring major source permitting is effective and efficient;
 - Designating areas;
 - Background ozone;
 - Interstate ozone transport;
 - The challenges of reducing ozone in California;
 - Managing monitoring networks;
 - Community involvement;
 - Multi-pollutant clean air planning;
 - Emissions from wildland fires;
 - Transportation planning; and
 - The Ozone Advance Program.
- California has unique air quality challenges, due to the combination of meteorology and topography, population growth, and the pollution burden associated with mobile sources. EPA will continue working closely with the state, tribes and local air quality officials, nongovernmental organizations, interested commercial representatives and other federal agencies to explore strategies and technologies to reduce pollution and improve public health protection for California residents.

Rules and guidance to help states and tribes

- The agency plans to propose rules and guidance over the next year to help states with potential nonattainment areas implement the revised standards. The agency also plans to update its Exceptional Events Rule, which outlines the requirements for excluding air quality data (including ozone data) from regulatory decisions if the data are affected by events outside an area's control, such as a wildfire or stratospheric intrusion.
- The Exceptional Events Rule is one of several tools available to states for addressing "uncontrollable pollution," including background ozone, as they develop their clean air plans. Background ozone is ozone that forms from sources other than manmade U.S. emissions.
- In addition, EPA is developing guidance to address Exceptional Events Rule criteria for wildfires that could affect ozone concentrations. The agency anticipates receiving additional fire-related exceptional events demonstrations as climate change leads to increases in wildfires.
- To ensure a smooth transition to the updated standards, EPA is including a grandfathering provision to ensure that compliance with the updated ozone standards will not delay final processing of certain pending preconstruction permit applications.

- As required by the Clean Air Act, EPA anticipates making attainment/nonattainment designations for the revised standards by late 2017; those designations likely will be based on 2014-2016 air quality data.
- For more information on the designations schedule: see <http://www3.epa.gov/ozonepollution/actions.html>.

Federal rules will help most areas meet the standards without additional reductions.

- Nonattainment areas will have until 2020 to late 2037 to meet the health standard, with attainment dates varying based on the ozone level in the area. Most states can build off work they are already doing to reduce pollution to help them meet the standards.
- Existing and proposed federal rules will help states meet the standards by reducing ozone-forming pollution. These rules include: requirements to reduce the interstate transport of air pollution, Regional Haze regulations, the Mercury and Air Toxics Standards, the Clean Power Plan, the Tier 3 Vehicle Emissions and Fuels Standards, the Light-Duty Vehicle Tier 2 Rule, the Mobile Source Air Toxics Rule, the Light-Duty Greenhouse Gas/Corporate Average Fuel Efficiency Standards, the Heavy-Duty Vehicle Greenhouse Gas Rule, the Reciprocating Internal Combustion Engines (RICE) NESHAP, and the Industrial/Commercial/Institutional Boilers and Process Heaters MACT and amendments.
- EPA's analysis shows that pollution reductions resulting from these rules will help the vast majority of counties meet the updated standards by 2025 without additional action.

Modernizing Monitoring Requirements

- The final rule streamlines and modernizes the Photochemical Assessment Monitoring Stations (PAMS) network to use monitoring resources most efficiently. The PAMS network measures ozone, the pollutants that form it, and meteorology in order to better understand ozone formation and to evaluate national and local ozone-reduction options.
- In addition, EPA is updating the Federal Reference Method for ozone to include an additional method for measuring ozone in the outdoor air. State, local and tribal air agencies will be able to continue operating their existing ozone monitors.

Notifying the Public: Updates to the Ozone Monitoring Season and Air Quality Index

- EPA is updating the Air Quality Index (AQI) to reflect the updates to the ozone health standard to provide the public with the most up-to-date information about air quality where they live. The AQI is EPA's color-coded tool for communicating air quality to the public.
- Also to help alert the public, EPA is extending the ozone monitoring season for 32 states and the District of Columbia to match the times of year when ozone is most likely to approach unhealthy levels. A review of all available ozone data from 2010 to 2013 shows that ozone can be elevated at times when some states were not required to measure it: earlier in the spring and later in the fall – and even in the wintertime in some western states.

- The monitoring season extensions will range from one additional month in 22 states and the District of Columbia, to an additional seven months in Utah.
- For more information on the AQI and monitoring season updates, see:
<http://www3.epa.gov/ozonepollution/actions.html>

Background on Developing the Ozone Standards

- The Clean Air Act requires EPA to review the ozone standards every five years to determine whether they should be revised in light of the latest science. Reviewing the NAAQS is a lengthy undertaking and includes the following major steps before EPA issues a proposed rule: planning; a comprehensive review, synthesis and evaluation of the science on ozone (referred to as the Integrated Science Assessment); risk and exposure assessments for public health and the public welfare; and a staff policy assessment.
- Scientific review during the development of each of these documents is thorough and extensive. Drafts of all documents are reviewed by EPA's independent science advisers (CASAC), and the public has an opportunity to comment on them.
 - In June-July 2014, CASAC provided its advice to EPA on the policy assessment, the health risk and exposure assessment, and the welfare risk and exposure assessment.
- The EPA Administrator evaluates all of this information, along with advice from the CASAC, in determining whether to propose revisions to a standard. Proposed rules are made available for public comment, and the agency holds public hearings. EPA carefully considers all comments received on the proposal before issuing a final rule.
- EPA issued the first national air quality standards for ozone in 1971. The agency has revised the standards three times – in 1979, 1997 and 2008 – to ensure they continue to protect public health and welfare. The agency has not revised the standards on two other occasions:
 - In 1993, EPA reviewed the standards but determined that revisions were not warranted;
 - In 2010, the agency proposed, but did not finalize, revisions as part of a reconsideration of the 2008 standards.
- In July 2013, the U.S. Court of Appeals for the D.C. Circuit upheld the 2008 primary ozone standard but remanded the secondary standard to EPA, on the grounds that the agency had not adequately explained how the secondary standard provided the required public welfare protection. The revisions to the secondary standard respond to this remand.
- On Jan. 21, 2014, the Sierra Club, American Lung Association, Environmental Defense Fund and Natural Resources Defense Council sued EPA for not completing the review of the standards within five years - by March 2013. The groups asked the U.S. District Court for the Northern

District of California to order EPA to complete the five-year review of the 2008 standards. The court ordered the agency to sign a proposed rule by Dec. 1, 2014 and a final rule by Oct. 1, 2015.

- On Nov. 25, 2014, EPA proposed to strengthen the ozone standards. The agency proposed to set both the primary and secondary standards as 8-hour standards of 65 to 70 ppb. EPA received more than 430,000 comments on the proposed standards and held three public hearings.

Where to Get More Information:

- To read the final rule and additional fact sheets, visit <http://www3.epa.gov/airquality/ozonepollution/actions.html> .
- For technical documents related to this review of the standards, see: http://www.epa.gov/ttn/naaqs/standards/ozone/s_o3_index.html
- A table of historical ozone standards is available at: http://www.epa.gov/ttn/naaqs/standards/ozone/s_o3_history.html
- For your local air quality forecasts and information on current air quality, visit www.airnow.gov

EPA'S FINAL AIR QUALITY STANDARDS FOR GROUND-LEVEL OZONE BY THE NUMBERS

- On Oct. 1, 2015, the U.S. Environmental Protection Agency (EPA) strengthened the National Ambient Air Quality Standards (NAAQS) for ground-level ozone to 70 parts per billion (ppb), based on extensive scientific evidence about ozone's effects on public health and welfare. The updated standards will improve public health protection, particularly for at-risk groups including children, older adults, people of all ages who have lung diseases such as asthma, and people who are active outdoors, especially outdoor workers. They also will improve protection for trees, plants and ecosystems. EPA will work closely with states and tribes as they implement the updated standards. Agency analyses show the vast majority of U.S. counties will meet the standards by 2025 just with federal and state rules and programs now in place or underway.

Science-based Air Standards Have a Proven Record of Success

- Setting and implementing national standards for pollution has made the air cleaner for all Americans.
- Since 1970, we have cut harmful air pollution by about **70%** while the US economy has **more than tripled**.
- National average ozone levels have gone **down 33%** since 1980.
- **More than 90%** of areas originally designated nonattainment for the 1997 ozone standards now meet those standards.

Reducing Air Pollution Delivers Health Benefits for Children and Adults

- An ozone standard of 70 parts per billion has public health benefits worth an estimated **\$2.9 to 5.9 billion**. These benefits outweigh the costs, estimated at **\$1.4 billion**.
- Reducing ozone and particle pollution nationwide (excluding California) in 2025 will avoid:
 - **320 to 660** premature deaths
 - **230,000** asthma attacks among children
 - **160,000** days when kids miss school
 - **28,000** missed work days
 - **630** asthma-related emergency room visits
 - **340** cases of acute bronchitis among children

California Benefits and Costs Estimated Separately

- Because several areas in California are not required to meet the existing standard by 2025 and may not be required to meet the revised standard until sometime between 2032 and 2037, we estimated benefits and costs for California separately.
- Meeting a 70 ppb standard after 2025 in California will yield annual health benefits of **\$1.2 to 2.1 billion**. These benefits outweigh the costs after 2025 in California, estimated at **\$0.8 billion**.
- Reducing ozone and particle pollution in California will avoid:
 - **120 to 220** premature deaths
 - **160,000** asthma attacks among children
 - **120,000** days when kids miss school
 - **5,300** missed work days
 - **380** asthma-related emergency room visits
 - **64** cases of acute bronchitis among children

Federal Rules Will Help Reduce Ozone Pollution

- Rules intended to reduce ozone precursors such as NOx and VOCs, along with rules that will reduce these pollutants as a co-benefit of reducing toxic emissions and carbon pollution, will help most parts of the country meet an ozone standard of 70 ppb.
- This includes federal air rules for power plants like the Clean Power Plan, CSAPR and MATS, emissions standards for stationary sources, and Tier 3 vehicle emissions and fuels standards.
- A total of **14 counties** with monitors (excluding California) are projected to measure ozone pollution above 70 ppb in 2025 -- down from **213 counties** with monitors (excluding California) that measure ozone above a level of 70 ppb based on 2012-2014 air quality data.

OZONE AND CHILDREN'S HEALTH

On Oct. 1, 2015, the U.S. Environmental Protection Agency (EPA) strengthened the National Ambient Air Quality Standards (NAAQS) for ground-level ozone to 70 parts per billion (ppb), based on extensive scientific evidence about ozone's effects on public health and welfare. The updated standards will improve public health protection, particularly for at-risk groups including children, older adults, people of all ages who have lung diseases such as asthma, and people who are active outdoors, especially outdoor workers, among others.

Highlights

- EPA's updated ozone standards will improve public health protection for children, avoiding hundreds of thousands of asthma attacks beginning in 2025.
- Children are one of the groups considered most at risk from ozone exposures.
- The updated standards will improve air quality broadly across the country, substantially reducing the number of times children are exposed to ozone at levels shown to cause harm.
- Updates to the Air Quality Index (AQI) will help ensure parents have the most up-to-date information on their local air quality. Parents and teachers can use AQI forecasts and current conditions information to help plan children's outdoor activities.

Children Are At Increased Risk

- Ozone can harm the respiratory system by inflaming cells that line the upper airways and the lungs – much like a sunburn damages skin.
 - Short-term exposures to ozone can make it more difficult to take a full, deep breath and can cause respiratory symptoms, even in healthy people. These short-term exposures also can aggravate asthma and other lung diseases and can make people more susceptible to respiratory infections.
 - Long-term exposure to ozone is linked to aggravation of asthma and a variety of other effects on the respiratory system, and is likely to be one of many causes of asthma development.
- Repeated ozone damage to developing lungs can affect children into adulthood, contributing to permanent reductions in the lungs' ability to function.
- Children -- including teenagers -- are among the groups of people considered most at risk from exposure to ground-level ozone, a key component of smog. Children, including healthy children, fall into this group for several reasons:

- Their lungs are still developing (this occurs until adulthood);
- They breathe more air per pound of body weight than adults. That means if the air contains ozone, children get a higher “dose” of ozone for their weight than adults;
- Children are active outside more than adults; and
- They also are more likely to have asthma.
- An estimated 6.1 million children in the U.S. have asthma, according to CDC estimates for 2013. That’s equal to one in every 12 children in the country.
- Asthma disproportionately affects children, families with lower incomes, and minorities, including Puerto Ricans, Native Americans/Alaska Natives and African-Americans.

How the Updated Standards Will Help

- The updated primary standard will improve air quality broadly across the country. Because of the way the standard is structured, areas that meet it will see ozone concentrations below 70 ppb on almost all days – and in many areas, on most days, concentrations will be well below 70.
- As a result, the primary standard will protect children by reducing the number of times they are exposed to ozone concentrations at 70 ppb and lower concentrations. Reducing these repeated exposures is important, because the likelihood of harm increases with repeated exposures
- The updated standards will yield significant health benefits nationwide, including benefits for children. EPA estimates that meeting the 70 ppb standards will yield health benefits valued at \$2.9 to \$5.9 billion annually in 2025 nationwide outside of California. These annual benefits include the value of avoiding a variety of harmful health effects, including:
 - 230,000 asthma attacks in children
 - 160,000 days when kids miss school
 - 340 cases of acute bronchitis in children
- EPA analyzed the benefits and costs for California separately, because a number of areas in California would have longer to meet the final standards, based on their ozone levels. Benefits of meeting the standards in California add to the nationwide benefits after 2025, with the value of the additional benefits estimated at \$1.2 to \$2.1 billion annually after 2025. These annual benefits include the value of avoiding a variety of harmful health effects, including:
 - 160,000 asthma attacks among children
 - 120,000 days when kids miss school
 - 64 cases of acute bronchitis among children.

Updated Standard Will Increase Protection for Children, Including Children with Asthma

- The Clean Air Act requires the EPA Administrator to set primary (health) standards to protect public health with “an adequate margin of safety” – including the health of at-risk groups. Children’s health was a key consideration in EPA’s review of the standards.
- Since the last review of the standards concluded in 2008, the science on the health effects from ozone exposure has significantly expanded. This includes new controlled human exposure studies, which provide the strongest evidence about health effects associated with ozone – including information about harmful effects occurring at levels below the 2008 standards of 75 ppb.
- Focusing on effects that meet accepted definitions of “adverse,” EPA carefully examined how air quality at an improved level of 70 ppb would reduce risk for children, including children with asthma.
- In addition to reviewing the science on ozone and health, the EPA Administrator also examined the results of risk and exposure analyses, which provide information about how often children are exposed to ozone at levels that have been shown to cause adverse health effects.
- The revised primary standard of 70 ppb will substantially reduce the number of times children are exposed to these concentrations. It also will reduce the number of times children are exposed to ozone at even lower levels, which may be of concern for at-risk populations and which helps provide the margin of safety the law requires.

Tools for Parents: Updates to the Air Quality Index

- Ozone levels are improving in most areas of the country – in fact, ozone declined nationwide 33 percent from 1980 to 2014. But children are still at risk, and even in areas that meet the ozone standard, there may be days when ozone levels are unhealthy.
- Parents can help protect their children’s health by using the Air Quality Index (AQI) to plan outdoor activities. The AQI is EPA’s color-coded tool for communicating air quality to the public.
- EPA has updated the AQI as part of the rule updating the ozone standards, to ensure it is grounded in science and to provide the public the most up-to-date information on ozone and health.

For More Information:

- The final ozone standards and additional information are available at:
<http://www3.epa.gov/ozonepollution/actions.html>.

- AQI forecasts, current air quality information and the free AirNow app for i-Phone and Android phones are available at www.airnow.gov.

Ozone and Ozone Standards: The Basics

About Ozone

Ozone is good up high, bad nearby

- Ozone is found in two regions of the Earth's atmosphere – at ground level and in the upper regions of the atmosphere. In both regions, ozone has the same chemical composition (O₃).
- In the stratosphere -- six to 30 miles above the Earth – ozone protects us from the sun's harmful rays.
- But in the troposphere – where we live – ozone is harmful to breathe and is a key component of smog. It also damages trees and plants.

Ozone isn't emitted – it forms in the atmosphere

- Ozone forms from nitrogen oxides (NO_x) and volatile organic compounds (VOCs) as they “cook” in the sun. Cars, trucks, buses, engines, industries, power plants and products such as solvents and paints are among the major manmade sources of ozone-forming emissions.

Ozone usually is a warm weather pollutant. But not always

- Ozone is most commonly be elevated in the warm summer months, when hot sunny days make it more likely that ozone will form. But this isn't always the case. In parts of the western United States with high levels of local VOC and NO_x emissions and unique meteorological conditions, ozone has been high when snow is on the ground.

Ozone isn't just a city pollutant

- Ozone, and the pollutants that form it, can travel long distances on the wind. For this reason, even rural areas or areas such as national parks that are far from pollution sources can have high ozone levels.

Even healthy people can be affected

- Ozone can inflame the airways, causing symptoms such as chest pain, coughing, wheezing and shortness of breath – even in healthy people. These effects can be more serious in people with lung diseases, such as asthma.
- The groups considered most at risk from ozone are children, people with asthma and other lung diseases, older adults, and adults who are active or work outside.

Background ozone can be natural or international

- Background ozone refers to ozone that forms from pollution from natural events, such as wildfires or stratospheric intrusions, and from man-made pollution from sources outside the United States.
- States are not responsible for reducing background ozone. The Clean Air Act and EPA policies provide a number of tools that may help areas avoid a nonattainment designation, or minimize planning and control requirements in nonattainment areas where background ozone significantly influences air quality.

About the Ozone Standards

Ozone standards set a limit on the amount of ozone allowed in the outside air

- EPA issues two standards, as required by the Clean Air Act: a primary standard, to protect public health; and a secondary standard, to protect the public welfare (in this case, trees, plants and ecosystems).

Ozone levels are declining – but there is more to do

- Even though national average ozone levels have gone down by a third since 1980, over 40 million Americans live in counties with air quality above the 2008 standard of 75 ppb. The science on ozone and health shows that the 2008 standard isn't strong enough to protect public health as the Clean Air Act requires. That's why EPA strengthened the standard to 70 ppb, which will further improve air quality and public health protection.

The updated health standard of 70 parts per billion (ppb) will protect health – especially for children

- Children are a key group at risk from ozone exposure, because their lungs are still developing, they're likely to be active outdoors when ozone is high, and they are more likely than adults to have asthma.
- The updated health standard will essentially eliminate children's exposure to ozone at 70 ppb, and will protect 98 percent of children from repeated exposures to ozone concentrations as low as 60 ppb – a 60 percent improvement over the current standard.

EPA uses three years of data to determine if an area meets the standards

- An area will meet the standards if the 4th highest maximum daily 8-hour ozone concentration each year, averaged over three years, is 70 ppb or below.
- Areas that don't meet the standard today may not get designated as nonattainment if their air quality improves enough in the next year: EPA will designate areas in late 2017, likely based on data from 2014 to 2016.

Areas don't lose highway funds if they are designated nonattainment. They also don't lose highway funds if they don't meet the standard on time

- Under the Clean Air Act, highway funds can only be withheld if states don't turn in approvable plans for meeting the ozone standard – or they don't turn in plans at all. EPA works with states to help them develop plans that meet the requirements of the law – and as a result, highway fund sanctions have rarely been imposed.
- Some types of projects are exempt from highway sanctions, such as projects for safety.
- Sanctions generally are short term and are lifted as soon as possible. Since 1980, highway sanctions have been imposed 11 times. All but one of these sanctions have been lifted.

States will have time to meet the standards – and EPA will work closely with them to help

- EPA anticipates designating areas in late 2017, likely based on 2014-2016 data.
- Nonattainment areas will have from 2020 to 2037 to meet the standards (areas with more work to do get more time). Federal rules will help the vast majority of counties meet the standards by 2025 without additional action.
- EPA will work closely with states to help transition to the updated standards.

To: Rupp, Mark[Rupp.Mark@epa.gov]; McCabe, Janet[McCabe.Janet@epa.gov]
From: Bill Becker
Sent: Thur 10/1/2015 6:18:11 PM
Subject: Re: EPA Strengthens Ozone Standards to Protect Public Health

My statement (I'm taking a few shots from the environmental community).

EPA has threaded the needle in strengthening the ozone standard. The agency has appropriately balanced the views of divergent stakeholders with the public's right to breathe clean air. By following the expert advice of its independent science advisors, EPA has set the stage for state and local air pollution control agencies to begin implementing this important program. Contrary to the rhetoric and hyperbole that preceded this announcement, this rule will not "be the most expensive regulation in U.S. history." In fact, most areas are already in compliance or are on a path toward attainment as a result of pollution control measures currently on the books, such as those addressing vehicles and fuels, power plants and other industrial facilities. In addition, manufacturers and other businesses will have close to a decade to meet any new requirements that are triggered by the new standard. People deserve to go about their daily activities knowing that the air they breathe is safe. Today, EPA provided that assurance.

S. William Becker
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Personal Privacy

www.4cleanair.org

From: <Rupp>, "rupp.mark@epa.gov" <rupp.mark@epa.gov>
Date: Thursday, October 1, 2015 at 2:15 PM
To: "rupp.mark@epa.gov" <rupp.mark@epa.gov>
Cc: "Bowles, Jack" <Bowles.Jack@epa.gov>, "Barbery, Andrea" <Barbery.Andrea@epa.gov>, Arnita Hannon <Hannon.Arnita@epa.gov>, "Eargle, Frances" <Eargle.Frances@epa.gov>, "Hanson, Andrew" <Hanson.Andrew@epa.gov>
Subject: EPA Strengthens Ozone Standards to Protect Public Health

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FOR IMMEDIATE RELEASE

October 1, 2015

EPA Strengthens Ozone Standards to Protect Public Health

Science-based standards to reduce sick days, asthma attacks, emergency room visits, greatly outweigh costs

WASHINGTON – Based on extensive scientific evidence on effects that ground-level ozone pollution, or smog, has on public health and welfare, the U.S. Environmental Protection Agency (EPA) has strengthened the National Ambient Air Quality Standards (NAAQS) for ground-level ozone to 70 parts per billion (ppb) from 75 ppb to protect public health. The updated standards will reduce Americans' exposure to ozone, improving public health protection, particularly for at risk groups including children, older adults, and people of all ages who have lung diseases such as asthma. Ground-level ozone forms when nitrogen oxides (NOx) and volatile organic compounds (VOCs) react in the air.

"Put simply – ozone pollution means it hurts to breathe for those most vulnerable: our kids, our elderly and those suffering from heart and lung ailments," said EPA Administrator Gina McCarthy. "Our job is to set science-backed standards that protect the health of the American people. Today's action is one of the most important measures we can take for improving public health, reducing the costs of illness and protecting our children's health."

EPA examined nearly 2,300 studies in this review of the ozone standards including more than 1,000 new studies published since the last review of the standards in 2008. Scientific evidence shows that ozone can cause a number of harmful effects on the respiratory system, including difficulty breathing and inflammation of the airways. The revised standards will significantly improve public health protection, resulting in fewer premature deaths, and thousands fewer missed school and work days and asthma attacks. For people with lung diseases like COPD (chronic obstructive pulmonary disease) or the 23 million Americans and 6 million children living with asthma, these effects can aggravate their diseases, leading to increased medication use, emergency room visits and hospital admissions. Evidence also indicates that long-term exposure to ozone is likely to be one of many causes of asthma development. And studies show that ozone exposure is likely to cause premature death. The public health benefits of the updated standards, estimated at \$2.9 to 5.9 billion annually in 2025, outweigh the estimated annual costs of \$1.4 billion.

Local communities, states, and the federal government have made substantial progress in reducing ground-level ozone. Nationally, from 1980 to 2014, average ozone levels have fallen 33 percent, while the economy has continued to grow. And by 2025, EPA projects that existing rules and programs will bring the vast majority of the remaining counties into compliance. Advances in pollution control technology for vehicles and industry along with other emission reduction standards, including “Tier 3” clean vehicle and fuels standards, the Clean Power Plan and the Mercury and Air Toxics Standards, will significantly cut smog-forming emissions, helping states meet today’s updated ozone standards.

To ensure that people are alerted when ozone reaches unhealthy levels, EPA is extending the ozone monitoring season for 32 states and the District of Columbia. This is particularly important for at-risk groups, including children and people with asthma because it will provide information so families can take steps to protect their health on smoggy days.

EPA also is strengthening the “secondary ozone standard” to 70 ppb, which will improve protection for trees, plants and ecosystems. New studies since the last review of the standards add to evidence showing that repeated exposure to ozone reduces growth and has other harmful effects on plants and trees. These types of effects have the potential to harm ecosystems and the benefits they provide.

The Clean Air Act provides states with time to meet the standards. Depending on the severity of their ozone problem, areas would have until between 2020 and 2037 to meet the standards.

The Clean Air Act requires EPA to review the ozone standards every five years to determine whether they should be revised in light of the latest science. Today’s action comes after a thorough review and public comment process. The agency received more than 430,000 written

comments on the proposed standards and held three public hearings.

More information: <http://www3.epa.gov/ozonepollution/>

To view the video: <https://m.youtube.com/watch?v=Y6chILb59zA>

###

To: McCabe, Janet[McCabe.Janet@epa.gov]; Stewart, Lori[Stewart.Lori@epa.gov]
From: Millett, John
Sent: Thur 10/1/2015 3:10:09 PM
Subject: FW: Final ozone press script
10 01 2015 Ozone Press call script FORADMINISTRATOR docx FINAL.docx
ATT00001.txt

~~~~~  
John Millett  
Director, OAR Communications  
Desk: 202-564-2903  
Cell: Personal Privacy

-----Original Message-----

From: Fried, Becky  
Sent: Thursday, October 01, 2015 10:48 AM  
To: Millett, John; Davis, Alison; Purchia, Liz; Reynolds, Thomas; Harrison, Melissa  
Cc: Hunter-Pirtle, Ann; McMichael, Nate  
Subject: Final ozone press script

So we all have it - here's the final ozone press script the Administrator now has in her book. It includes all of the changes as of this morning from Janet and OAR, as well as some formatting/copyedits from me. She has reviewed the new changes and is good with this version.

Thanks to all!

**PRESS CALL SCRIPT FOR ADMINISTRATOR GINA MCCARTHY  
OZONE RULE ANNOUNCEMENT  
OCTOBER 1, 2015 // WASHINGTON, DC // ~12 MINS**

HI EVERYONE, THANKS FOR JOINING THE CALL TODAY.

I'M HAPPY TO BE ABLE TO SHARE ANOTHER MILESTONE IN THE EPA'S LONG HISTORY OF PROTECTING HUMAN HEALTH AND THE ENVIRONMENT.

TODAY I SIGNED A FINAL RULE THAT WILL BETTER PROTECT ALL OF US FROM GROUND-LEVEL OZONE, A DANGEROUS AIR POLLUTANT KNOWN TO MANY AMERICANS AS "SMOG".

OZONE IS NOT EMITTED DIRECTLY INTO THE AIR. RATHER, IT IS FORMED FROM EMISSIONS FROM MOTOR VEHICLES, INDUSTRIAL ACTIVITIES (INCLUDING POWER PLANTS) AND VARIOUS OTHER ACTIVITIES

BREATHING OZONE HARMS LUNGS, CAUSES BREATHING DIFFICULTY, WORSENS ASTHMA, AND INCREASES THE RISK OF PERMANENT LUNG DAMAGE AND PREMATURE DEATH.

CHILDREN ARE AMONG THE MOST AT-RISK BECAUSE THEIR LUNGS ARE STILL DEVELOPING, THEY BREATHE MORE PER POUND OF BODY WEIGHT THAN ADULTS, AND THEY SPEND MORE TIME OUTSIDE THAN ADULTS—AT LEAST WE HOPE THEY DO. SADLY, THEY ALSO HAVE ASTHMA AT HIGHER RATES THAN ADULTS.

THERE ARE OTHER SENSITIVE GROUPS TOO. SENIORS AND PEOPLE SUFFERING FROM RESPIRATORY ILLNESS ARE ALSO MORE SENSITIVE TO OZONE POLLUTION.

THAT'S WHY WE HAVE AIR QUALITY STANDARDS FOR OZONE POLLUTION – TO PROTECT PEOPLE'S HEALTH AND THE ENVIRONMENT.

AND WHILE THE DAYS ARE GONE WHEN CITIES LIKE LOS ANGELES WERE SO SMOGGY, PEOPLE HAD TROUBLE SEEING ACROSS THE STREET, SCIENCE TELLS US THAT OZONE IS STILL MAKING PEOPLE SICK AND WE STILL HAVE WORK TO DO.

*[[PAUSE]]*

YOU MAY KNOW THAT THE CLEAN AIR ACT REQUIRES EPA TO REVIEW ITS AIR QUALITY STANDARDS EVERY FIVE YEARS.

THIS ENSURES THAT WE ARE CONTINUALLY LOOKING AT THE LATEST SCIENTIFIC EVIDENCE TO PROTECT PUBLIC HEALTH WITH – "QUOTE" – AN ADEQUATE MARGIN OF SAFETY". THAT MEANS THE STANDARD SHOULD PROTECT SENSITIVE GROUPS, LIKE CHILDREN, WHO I MENTIONED BEFORE.

THAT'S A JOB THE LAW ASSIGNS TO ME, AS THE EPA ADMINISTRATOR. AND TO DO IT RIGHT, I HAVE TO FOLLOW THE SCIENCE ON OZONE AND HEALTH.

OVER THE PAST SEVERAL YEARS, EPA HAS CONDUCTED A RIGOROUS REVIEW OF THE SCIENTIFIC LITERATURE – INCLUDING CLINICAL STUDIES, ASSESSMENTS BY OUR OWN EPA TECHNICAL EXPERTS, AS WELL AS RECOMMENDATIONS FROM THE AGENCY'S INDEPENDENT SCIENTIFIC ADVISORS.

WE ALSO CONSIDERED A VAST AMOUNT OF STAKEHOLDER FEEDBACK, INCLUDING MORE THAN 430,000 PUBLIC COMMENTS ON THE PROPOSAL.

BASED ON ALL THIS INFORMATION, AND BASED ON MY JUDGMENT AS EPA ADMINISTRATOR, I'VE SET A REVISED PRIMARY OZONE STANDARD OF **70 PARTS PER BILLION**.

THIS STRENGTHENED STANDARD WILL IMPROVE PUBLIC HEALTH PROTECTION ACROSS THE COUNTRY AND PROVIDE THE ADEQUATE MARGIN OF SAFETY THAT IS REQUIRED BY LAW AND THAT THE SCIENCE SUPPORTS.

*[[PAUSE]]*

SETTING THIS STANDARD IS A COMPLEX PROCESS – SO I WANT TO TAKE A MINUTE TO WALK THROUGH IT WITH YOU.

THE CLEAN AIR ACT REQUIRES EPA TO REVIEW OZONE STANDARDS EVERY FIVE YEARS, TO DETERMINE WHETHER THEY NEED TO BE REVISED BASED ON THE LATEST SCIENCE.

FOR THIS REVIEW, EPA EXAMINED THOUSANDS OF SCIENTIFIC STUDIES, INCLUDING MORE THAN **1,000** NEW STUDIES THAT HAVE BEEN PUBLISHED SINCE WE LAST REVIEWED THE STANDARDS IN **2008**. WE SOUGHT INDEPENDENT EXPERT ADVICE AND PUBLIC INPUT EVERY STEP OF THE WAY.

THE SCIENCE CLEARLY TELLS US THAT THE **2008** STANDARDS OF **75 PPB** ARE NOT ADEQUATELY PROTECTIVE OF PUBLIC HEALTH AND NEEDED TO BE REVISED.

I WANT TO STRESS THAT THE CLEAN AIR ACT REQUIRES A STANDARD THAT IS “REQUISITE” TO PROTECT PUBLIC HEALTH WITH AN ADEQUATE MARGIN OF SAFETY.

THIS MEANS I MUST SET A STANDARD THAT, IN MY JUDGEMENT, IS NO MORE OR LESS STRINGENT THAN NECESSARY TO PROTECT AT-RISK GROUPS.

IN MAKING MY DECISION ABOUT THE ADEQUATE MARGIN OF SAFETY, I CONSIDERED THE TYPES AND SEVERITY OF HEALTH EFFECTS, UNCERTAINTIES IN THE SCIENCE, AND THE NEED TO PROTECT SENSITIVE GROUPS.

I FOCUSED ON NEW SCIENCE THAT HAS BECOME AVAILABLE SINCE WE LAST REVIEWED THE STANDARDS IN 2008. THIS INCLUDES NEW CLINICAL STUDIES THAT PROVIDE THE MOST CERTAIN EVIDENCE OF ADVERSE HEALTH EFFECTS IN ADULTS.

I ALSO REVIEWED ASSESSMENTS THAT LOOK AT HOW PEOPLE ARE EXPOSED TO OZONE IN THEIR DAILY LIVES, AND HOW DIFFERENT LEVELS OF A STANDARD WOULD



REDUCE RISKS.

I PARTICULARLY FOCUSED ON CHILDREN'S EXPOSURES – ESPECIALLY MULTIPLE EXPOSURES. THESE ARE IMPORTANT BECAUSE THE MORE TIMES CHILDREN ARE EXPOSED TO OZONE, THE GREATER THEIR RISK OF EXPERIENCING SERIOUS ADVERSE HEALTH EFFECTS.

I ALSO CONSIDERED – AND DEEPLY APPRECIATE – THE SCIENTIFIC ADVICE FROM OUR INDEPENDENT EXPERTS ON THE CLEAN AIR SCIENTIFIC ADVISORY COMMITTEE—OR **CASAC**. THEIR CONCLUSION WAS THAT **75 PPB** WAS NOT SUFFICIENTLY PROTECTIVE, AND RECOMMENDED THE STANDARD BE SET SOMEWHERE IN THE RANGE OF **60-70 PPB**.

MY FINAL DECISION TO STRENGTHEN THE STANDARD TO **70 PPB** REFLECTS MY CONSIDERATION OF THAT ADVICE AND MY OBLIGATION TO WEIGH THE SCIENCE, INCLUDING THE UNCERTAINTIES THAT REMAIN.

RIGHT NOW, THE BEST AVAILABLE CLINICAL DATA SHOW THAT **72 PPB** IS THE LOWEST OZONE EXPOSURE THAT CAUSES ADVERSE HEALTH EFFECTS IN HEALTHY, EXERCISING ADULTS – WHICH IS THE COMBINATION OF DECREASED LUNG FUNCTION AND INCREASED RESPIRATORY SYMPTOMS.

BUT WE MUST MAKE SURE WE ARE PROTECTING ALL PEOPLE FROM THIS LEVEL OF EXPOSURE—NOT JUST HEALTHY ADULTS, BUT EVERYONE—INCLUDING KIDS, PEOPLE WITH ASTHMA, OLDER AMERICANS, AND THOSE WHO ARE ACTIVE OR WORK OUTSIDE. SO I KNEW THE STANDARD NEEDED TO BE LOWER THAN **72**.

WHILE SOME STUDIES HAVE SHOWN EFFECTS IN ADULTS AT LEVELS AS LOW AS **60 PPB**, THESE STUDIES DO NOT SHOW THAT THESE EFFECTS ARE HARMFUL. BASED ON THAT UNCERTAINTY, I CONCLUDED THAT WE SHOULD STRIVE TO REDUCE, BUT NOT NECESSARILY ELIMINATE, EXPOSURES TO OZONE CONCENTRATIONS AS LOW AS **60 PPB**.

GOING FORWARD, THE **5-YEAR** REVIEW CYCLE FOR THESE STANDARDS WILL HELP REDUCE THESE UNCERTAINTIES AS SCIENCE ADVANCES AND NEW RESEARCH FILLS INFORMATION GAPS.

THIS UPDATED STANDARD WILL SUBSTANTIALLY INCREASE PUBLIC HEALTH PROTECTION. THERE IS NO QUESTION ABOUT THAT.

A LEVEL OF **70 PPB** WILL ESSENTIALLY ELIMINATE EXPOSURES TO THE LEVELS THAT CLINICAL STUDIES CLEARLY SHOW ARE HARMFUL.

I ALSO WANT TO MAKE CLEAR THAT, BECAUSE A STANDARD OF **70** ONLY ALLOWS LEVELS AS HIGH AS **70** ON VERY FEW DAYS, AREAS THAT MEET THE NEW STANDARD WILL ACTUALLY BE BELOW THAT LEVEL ON ALMOST ALL DAYS. THAT MEANS THE **70 PPB** STANDARD PROTECTS AGAINST REPEATED EXPOSURES TO OZONE CONCENTRATIONS AS LOW AS **60 PPB** A SUBSTANTIAL AMOUNT OF THE TIME.

IT WILL PREVENT MORE THAN **98%** OF SCHOOL AGE CHILDREN FROM REPEATED EXPOSURES TO OZONE AT CONCENTRATIONS AS LOW AS **60 PPB** – THAT’S A REDUCTION OF MORE THAN **60%** OVER THE CURRENT STANDARD.

WE ESTIMATE THAT MEETING THE LEVEL OF **70 PARTS PER BILLION** WILL PREVENT **160,000** MISSED SCHOOL DAYS, **230,000** ASTHMA ATTACKS, AND UP TO **660** PREMATURE DEATHS PER YEAR IN 2025.

WE ALSO ESTIMATE THAT THE BENEFITS OF MEETING **70 PARTS PER BILLION** WILL BE WORTH FROM **\$2.9 TO \$5.9 BILLION DOLLARS** PER YEAR STARTING IN 2025. THESE BENEFITS OUTWEIGH THE COSTS BY AS MUCH AS A RATIO OF **4 TO 1**.

FINALLY, WHILE TODAY’S ANNOUNCEMENT IS ABOUT SETTING A STANDARD THAT WILL PROTECT PUBLIC HEALTH, I KNOW PEOPLE ARE LOOKING AHEAD TO IMPLEMENTATION. AND I WANT TO EMPHASIZE THAT THIS STANDARD IS ACHIEVABLE.

EPA, STATES, AND LOCAL GOVERNMENTS HAVE A LONGSTANDING PARTNERSHIP WHEN IT COMES TO SAFEGUARDING AIR QUALITY. AND THE CLEAN AIR ACT GIVES STATES PLENTY OF TIME AND FLEXIBILITY TO PLAN FOR AND MEET THE NEW STANDARDS. IN FACT, WITH RULES ALREADY ON THE BOOKS, WE EXPECT THAT ALL BUT A FEW AREAS OF THE COUNTRY WILL MEET THIS STANDARD BY **2025**.

WE’VE HEARD THE CONCERNS ABOUT BACKGROUND OZONE LEVELS. OUR ANALYSES SHOW THAT IT’S UNLIKELY BACKGROUND OZONE WILL AFFECT A STATE’S ABILITY TO MEET THE STANDARDS, AND THERE ARE TOOLS IN THE CLEAN AIR ACT TO HELP STATES WITH THIS ISSUE. IN ADDITION, WE PLAN TO HOLD A TECHNICAL WORKSHOP SO PEOPLE CAN TALK THIS ISSUE THROUGH.

EPA STANDS READY TO ASSIST STATES WITH TIMELY AND FLEXIBLE IMPLEMENTATION TOOLS—WE ARE ALREADY WORKING ON THEM. LOCAL COMMUNITIES, STATES, TRIBES AND THE EPA HAVE ALREADY PROVEN THAT WE CAN REDUCE GROUND-LEVEL OZONE WHILE THE ECONOMY THRIVES.

NATIONALLY, SINCE **1980**, AVERAGE OZONE LEVELS HAVE FALLEN BY A THIRD. AND MORE THAN **90 PERCENT** OF THE AREAS ORIGINALLY IDENTIFIED AS NOT MEETING THE STANDARDS SET IN **1997** NOW MEET IT.

WE FULLY EXPECT THIS PROGRESS TO CONTINUE. STANDARDS AND PROGRAMS IN PLACE – OR ON THE WAY – THAT SIGNIFICANTLY CUT SMOG-FORMING EMISSIONS FROM INDUSTRIAL FACILITIES, CARS, TRUCKS, BUSES, AND MANY OTHER TYPES OF EQUIPMENT AND VEHICLES WILL HELP STATES MEET THE NEW STANDARDS.

WE KNOW HOW TO DO THIS. WE’VE DONE IT BEFORE, AND WE’RE ON TRACK TO DO IT AGAIN.

EPA’S JOB—MY JOB—IS TO PROTECT PUBLIC HEALTH AND THE ENVIRONMENT. WE TAKE THAT RESPONSIBILITY VERY SERIOUSLY.

THIS REVISED STANDARD—BASED ON THE SCIENCE AND THE LAW—WILL IMPROVE  
THE HEALTH OF MILLIONS OF AMERICANS.

THANKS FOR YOUR ATTENTION.

###

**To:** Millett, John[Millett.John@epa.gov]  
**Cc:** Purchia, Liz[Purchia.Liz@epa.gov]; Reynolds, Thomas[Reynolds.Thomas@epa.gov]; McCabe, Janet[McCabe.Janet@epa.gov]; Harrison, Melissa[Harrison.Melissa@epa.gov]  
**From:** Fried, Becky  
**Sent:** Thur 10/1/2015 2:00:00 PM  
**Subject:** Re: 10 01 2015 Ozone Press call script\_FORADMINISTRATOR docx jm (3).docx

Thanks! I will walk a copy up to the administrator.

Sent from my iPhone

On Oct 1, 2015, at 9:58 AM, Millett, John <Millett.John@epa.gov> wrote:

Back with Janet's edits – thanks!

<10 01 2015 Ozone Press call script\_FORADMINISTRATOR docx jm (3).docx>

**To:** Purchia, Liz[Purchia.Liz@epa.gov]; Fried, Becky[Fried.Becky@epa.gov]; Reynolds, Thomas[Reynolds.Thomas@epa.gov]; McCabe, Janet[McCabe.Janet@epa.gov]; Harrison, Melissa[Harrison.Melissa@epa.gov]  
**From:** Millett, John  
**Sent:** Thur 10/1/2015 1:58:17 PM  
**Subject:** 10 01 2015 Ozone Press call script\_FORADMINISTRATOR docx jm (3).docx  
10 01 2015 Ozone Press call script\_FORADMINISTRATOR docx jm (3).docx

Back with Janet's edits – thanks!

**PRESS CALL SCRIPT FOR ADMINISTRATOR GINA MCCARTHY  
OZONE RULE ANNOUNCEMENT  
OCTOBER 1, 2015 // WASHINGTON, DC //**

HI EVERYONE, THANKS FOR JOINING THE CALL TODAY.

I'M HAPPY TO BE ABLE TO SHARE ANOTHER MILESTONE IN THE EPA'S LONG HISTORY OF PROTECTING HUMAN HEALTH AND THE ENVIRONMENT.

TODAY I SIGNED A FINAL RULE THAT WILL BETTER PROTECT ALL OF US FROM GROUND-LEVEL OZONE, A DANGEROUS AIR POLLUTANT KNOWN TO MANY AMERICANS AS "SMOG".

OZONE IS NOT EMITTED DIRECTLY INTO THE AIR. RATHER, IT IS FORMED FROM EMISSIONS FROM MOTOR VEHICLES, INDUSTRIAL ACTIVITIES (INCLUDING POWER PLANTS) AND VARIOUS OTHER ACTIVITIES

BREATHING OZONE HARMS LUNGS, CAUSES BREATHING DIFFICULTY, WORSENS ASTHMA, AND INCREASES THE RISK OF PERMANENT LUNG DAMAGE AND PREMATURE DEATH.

CHILDREN ARE AMONG THE MOST AT-RISK BECAUSE THEIR LUNGS ARE STILL DEVELOPING, THEY BREATHE MORE PER POUND OF BODY WEIGHT THAN ADULTS, AND THEY SPEND MORE TIME OUTSIDE—AT LEAST WE HOPE THEY DO—THAN ADULTS. SADLY, THEY ALSO HAVE ASTHMA AT HIGHER RATES THAN ADULTS.

THERE ARE OTHER SENSITIVE GROUPS TOO. OUR SENIORS, AND PEOPLE SUFFERING FROM RESPIRATORY ILLNESSES ARE ALSO MORE SENSITIVE TO OZONE POLLUTION.

THAT'S WHY WE HAVE AIR QUALITY STANDARDS FOR OZONE POLLUTION. TO PROTECT PEOPLE'S HEALTH AND THE ENVIRONMENT. AND WHILE THE DAYS ARE GONE WHEN AMERICAN CITIES LIKE LOS ANGELES WERE SO SMOGGY PEOPLE HAD TROUBLE SEEING ACROSS THE STREET, SCIENCE TELLS US THAT OZONE IS STILL MAKING PEOPLE SICK AND WE STILL HAVE WORK TO DO.

*[[PAUSE]]*

YOU MAY KNOW THAT THE CLEAN AIR ACT REQUIRES EPA TO REVIEW ITS AIR QUALITY STANDARDS EVERY FIVE YEARS.

THIS ENSURES THAT WE ARE CONTINUALLY LOOKING AT THE LATEST SCIENTIFIC EVIDENCE TO PROTECT PUBLIC HEALTH WITH "QUOTE" AN ADEQUATE MARGIN OF SAFETY". AND THAT MEANS THE STANDARD SHOULD PROTECT SENSITIVE GROUPS, LIKE CHILDREN, WHO I MENTIONED BEFORE.

THAT'S A JOB THE LAW ASSIGNS TO ME, AS THE EPA ADMINISTRATOR. AND TO DO IT RIGHT, I HAVE TO FOLLOW THE SCIENCE ON OZONE AND HEALTH.

OVER THE PAST SEVERAL YEARS, EPA HAS CONDUCTED A RIGOROUS REVIEW OF THE SCIENTIFIC LITERATURE – INCLUDING CLINICAL STUDIES, ASSESSMENTS BY OUR OWN EPA TECHNICAL EXPERTS, AS WELL AS RECOMMENDATIONS FROM THE AGENCY'S INDEPENDENT SCIENTIFIC ADVISORS.

WE ALSO CONSIDERED A VAST AMOUNT OF STAKEHOLDER FEEDBACK, INCLUDING MORE THAN 430,000 PUBLIC COMMENTS ON THE PROPOSAL.

BASED ON ALL THIS INFORMATION, AND BASED ON MY JUDGMENT AS EPA ADMINISTRATOR, I'VE SET A REVISED PRIMARY OZONE STANDARD OF **70 PARTS PER BILLION**.

THIS STRENGTHENED STANDARD WILL IMPROVE PUBLIC HEALTH PROTECTION ACROSS THE COUNTRY AND PROVIDE THE ADEQUATE MARGIN OF SAFETY THAT THE LAW REQUIRES AND THAT THE SCIENCE SUPPORTS.

*[[PAUSE]]*

SETTING THIS STANDARD IS A COMPLEX PROCESS – AND I WANT TO TAKE A MINUTE TO WALK THROUGH IT WITH YOU.

THE CLEAN AIR ACT REQUIRES EPA TO REVIEW OZONE STANDARDS EVERY FIVE YEARS TO DETERMINE WHETHER THEY SHOULD BE REVISED BASED ON THE LATEST SCIENCE.

FOR THIS REVIEW, EPA EXAMINED THOUSANDS OF SCIENTIFIC STUDIES, INCLUDING MORE THAN 1,000 NEW STUDIES THAT HAVE BEEN PUBLISHED SINCE WE LAST REVIEWED THE STANDARDS IN 2008. WE SOUGHT INDEPENDENT EXPERT ADVICE AND PUBLIC INPUT EVERY STEP OF THE WAY.

THE SCIENCE CLEARLY TELLS US THAT THE 2008 STANDARDS OF **75 PPB** ARE NOT ADEQUATELY PROTECTIVE OF PUBLIC HEALTH AND NEEDED TO BE REVISED.

I WANT TO STRESS THAT THE CLEAN AIR ACT REQUIRES A STANDARD THAT IS “REQUISITE” TO PROTECT PUBLIC HEALTH WITH AN ADEQUATE MARGIN OF SAFETY.

THIS MEANS I MUST SET A STANDARD THAT, IN MY JUDGEMENT, IS NO MORE OR LESS STRINGENT THAN NECESSARY TO PROTECT AT-RISK GROUPS.

IN MAKING MY DECISION ABOUT THE ADEQUATE MARGIN OF SAFETY, I CONSIDERED THE TYPES AND SEVERITY OF HEALTH EFFECTS, UNCERTAINTIES IN THE SCIENCE AND protecting SENSITIVE GROUPS.

I FOCUSED ON NEW SCIENCE THAT HAS BECOME AVAILABLE SINCE WE LAST REVIEWED THE STANDARDS IN 2008. THIS INCLUDES NEW CLINICAL STUDIES THAT PROVIDE THE MOST CERTAIN EVIDENCE OF ADVERSE HEALTH EFFECTS IN ADULTS.

I ALSO REVIEWED ASSESSMENTS THAT LOOK AT HOW PEOPLE ARE EXPOSED TO OZONE IN THEIR DAILY LIVES, AND HOW DIFFERENT LEVELS OF A STANDARD WOULD

REDUCE RISKS.

I PARTICULARLY FOCUSED ON CHILDREN'S EXPOSURES – ESPECIALLY MULTIPLE EXPOSURES. THESE ARE IMPORTANT BECAUSE THE MORE TIMES CHILDREN ARE EXPOSED TO OZONE, THE GREATER THEIR RISK OF EXPERIENCING SERIOUS adverse HEALTH EFFECTS.

I ALSO CONSIDERED – AND DEEPLY APPRECIATE -- THE SCIENTIFIC ADVICE FROM OUR INDEPENDENT EXPERTS ON THE CLEAN AIR SCIENTIFIC ADVISORY COMMITTEE—OR CASAC. THEIR CONCLUSION WAS THAT 75 PPB WAS NOT SUFFICIENTLY PROTECTIVE, AND RECOMMENDED THE STANDARD BE SET SOMEWHERE IN THE RANGE OF 60-70 PPB.

MY FINAL DECISION TO STRENGTHEN THE STANDARD TO **70 PPB** REFLECTS MY CONSIDERATION OF THAT ADVICE AND MY OBLIGATION TO WEIGH THE SCIENCE, INCLUDING THE UNCERTAINTIES THAT REMAIN.

RIGHT NOW, THE BEST AVAILABLE CLINICAL DATA SHOW THAT **72 PPB** IS THE LOWEST OZONE EXPOSURE THAT CAUSES ADVERSE HEALTH EFFECTS IN HEALTHY, EXERCISING ADULTS – WHICH IS THE COMBINATION OF DECREASED LUNG FUNCTION AND INCREASED RESPIRATORY SYMPTOMS.

BUT WE MUST MAKE SURE WE ARE PROTECTING ALL PEOPLE FROM THIS LEVEL OF EXPOSURE—NOT JUST HEALTHY ADULTS, BUT EVERYONE, INCLUDING KIDS, PEOPLE WITH ASTHMA, OLDER AMERICANS, AND PEOPLE WHO ARE ACTIVE OR WORK OUTSIDE. SO I KNEW THE STANDARD NEEDED TO BE LOWER THAN 72.

WHILE SOME STUDIES HAVE SHOWN EFFECTS IN ADULTS AT LEVELS AS LOW AS **60 PPB**, These studies do not show that these effects are harmful.

BASED ON THAT UNCERTAINTY, I CONCLUDED THAT WE SHOULD STRIVE TO REDUCE, BUT NOT NECESSARILY ELIMINATE, EXPOSURES TO OZONE CONCENTRATIONS AS LOW AS **60 PPB**.

GOING FORWARD, THE 5-YEAR REVIEW CYCLE FOR THESE STANDARDS WILL HELP REDUCE THESE UNCERTAINTIES AS SCIENCE ADVANCES AND NEW RESEARCH FILLS INFORMATION GAPS.

THIS UPDATED STANDARD WILL SUBSTANTIALLY INCREASE PUBLIC HEALTH PROTECTION. THERE IS NO QUESTION ABOUT THAT.

A LEVEL OF **70 PPB** WILL ESSENTIALLY ELIMINATE EXPOSURES TO THE LEVELS THAT CLINICAL STUDIES CLEARLY SHOW ARE HARMFUL.

I ALSO WANT TO MAKE CLEAR THAT, BECAUSE A STANDARD OF 70 ONLY ALLOWS LEVELS AS HIGH AS 70 ON VERY FEW DAYS, AREAS THAT MEET THE NEW WILL ACTUALLY BE BELOW that level ON ALMOST ALL DAYS..

WHAT THAT MEANS IS THAT THE **70 PPB** STANDARD PROTECTS CHILDREN—AND



EVERYONE ELSE—FROM LEVELS AS LOW AS 60 PPB A SUBSTANTIAL AMOUNT OF THE TIME. IT WILL PREVENT MORE THAN **98%** OF CHILDREN FROM BEING EXPOSED TO OZONE AT A LEVEL OF **60 PPB** ON 2 OR MORE DAYS – A REDUCTION OF MORE THAN **60%** OVER THE CURRENT STANDARD.

WE ESTIMATE THAT MEETING THE LEVEL OF **70 PARTS PER BILLION** WILL PREVENT **160,000** MISSED SCHOOL DAYS, **230,000** ASTHMA ATTACKS, AND UP TO **660** PREMATURE DEATHS PER YEAR IN 2025.

WE ALSO ESTIMATE THAT THE BENEFITS OF MEETING **70 PARTS PER BILLION** WILL BE WORTH FROM **\$2.9 TO \$5.9 BILLION DOLLARS** PER YEAR STARTING IN 2025. THESE BENEFITS OUTWEIGH THE COSTS BY AS MUCH AS A RATIO OF **4 TO 1**.

FINALLY, WHILE TODAY'S ANNOUNCEMENT IS ABOUT SETTING A STANDARD THAT WILL PROTECT PUBLIC HEALTH, I KNOW PEOPLE ARE LOOKING AHEAD TO IMPLEMENTATION. AND I WANT TO EMPHASIZE THAT THIS STANDARD IS ACHIEVABLE.

EPA, STATES, AND LOCAL GOVERNMENTS HAVE A LONGSTANDING PARTNERSHIP WHEN IT COMES TO SAFEGUARDING AIR QUALITY. AND THE CLEAN AIR ACT GIVES STATES PLENTY OF TIME AND FLEXIBILITY TO PLAN FOR AND MEET THE NEW STANDARDS. IN FACT, WITH RULES ALREADY ON THE BOOKS, WE EXPECT THAT ALL BUT A FEW AREAS OF THE COUNTRY WILL MEET THIS STANDARD BY 2025.

WE'VE HEARD THE CONCERNS ABOUT BACKGROUND OZONE LEVELS. OUR ANALYSES SHOW THAT IT'S UNLIKELY BACKGROUND OZONE WILL AFFECT A STATE'S ABILITY TO MEET THE STANDARDS, AND THERE ARE TOOLS IN THE CLEAN AIR ACT TO HELP STATES WITH THIS ISSUE. IN ADDITION, WE PLAN TO HOLD A TECHNICAL WORKSHOP SO PEOPLE CAN TALK THIS ISSUE THROUGH.

EPA STANDS READY TO ASSIST STATES WITH TIMELY AND FLEXIBLE IMPLEMENTATION TOOLS—WE ARE ALREADY WORKING ON THEM. LOCAL COMMUNITIES, STATES, TRIBES AND THE EPA HAVE ALREADY PROVEN THAT WE CAN REDUCE GROUND-LEVEL OZONE WHILE THE ECONOMY THRIVES.

NATIONALLY, SINCE 1980, AVERAGE OZONE LEVELS HAVE FALLEN BY A THIRD. AND MORE THAN **90 PERCENT** OF THE AREAS ORIGINALLY IDENTIFIED AS NOT MEETING THE STANDARDS SET IN 1997 NOW MEET IT.

WE FULLY EXPECT THIS PROGRESS TO CONTINUE. STANDARDS AND PROGRAMS IN PLACE – OR ON THE WAY – THAT SIGNIFICANTLY CUT SMOG-FORMING EMISSIONS FROM INDUSTRIAL FACILITIES, CARS, TRUCKS, BUSES, AND MANY OTHER TYPES OF EQUIPMENT AND VEHICLES WILL HELP STATES MEET THE NEW STANDARDS.

WE KNOW HOW TO DO THIS. WE'VE DONE IT BEFORE, AND WE'RE ON TRACK TO DO IT AGAIN.

EPA'S JOB—MY JOB—IS TO PROTECT HUMAN HEALTH AND THE ENVIRONMENT AND WE TAKE THAT RESPONSIBILITY VERY SERIOUSLY. THIS REVISED

STANDARD—BASED ON THE SCIENCE AND THE LAW-- WILL IMPROVE THE HEALTH OF  
MILLIONS OF AMERICANS.

THANKS FOR YOUR ATTENTION.

###

**To:** McCabe, Janet[McCabe.Janet@epa.gov]  
**Cc:** Millett, John[Millett.John@epa.gov]; Reynolds, Thomas[Reynolds.Thomas@epa.gov]; Purchia, Liz[Purchia.Liz@epa.gov]; Davis, Alison[Davis.Alison@epa.gov]; Koerber, Mike[Koerber.Mike@epa.gov]; Page, Steve[Page.Steve@epa.gov]; Sasser, Erika[Sasser.Erika@epa.gov]; Wesson, Karen[Wesson.Karen@epa.gov]; Jordan, Deborah[Jordan.Deborah@epa.gov]  
**From:** Fried, Becky  
**Sent:** Thur 10/1/2015 1:57:03 AM  
**Subject:** Re: 10 01 2015 Ozone Press call script\_FORADMINISTRATOR.docx jm.docx

Thanks. Happy to integrate this and any other last edits in the morning.

Sent from my iPhone

On Sep 30, 2015, at 9:08 PM, McCabe, Janet <[McCabe.Janet@epa.gov](mailto:McCabe.Janet@epa.gov)> wrote:

Please take a look at these changes—sorry it looks so messy and I’ve added to the length.....There are a few questions embedded as well.

janet

<10 01 2015 Ozone Press call script\_FORADMINISTRATOR.docx jm.docx>

**To:** Millett, John[Millett.John@epa.gov]; Reynolds, Thomas[Reynolds.Thomas@epa.gov]; Purchia, Liz[Purchia.Liz@epa.gov]; Fried, Becky[Fried.Becky@epa.gov]; Davis, Alison[Davis.Alison@epa.gov]  
**Cc:** McCabe, Janet[McCabe.Janet@epa.gov]; Koerber, Mike[Koerber.Mike@epa.gov]; Page, Steve[Page.Steve@epa.gov]; Sasser, Erika[Sasser.Erika@epa.gov]; Wesson, Karen[Wesson.Karen@epa.gov]; Jordan, Deborah[Jordan.Deborah@epa.gov]  
**From:** McCabe, Janet  
**Sent:** Thur 10/1/2015 1:08:28 AM  
**Subject:** 10 01 2015 Ozone Press call script\_FORADMINISTRATOR.docx jm.docx  
10 01 2015 Ozone Press call script\_FORADMINISTRATOR.docx jm.docx

Please take a look at these changes—sorry it looks so messy and I’ve added to the length.....There are a few questions embedded as well.

janet

**To:** McCabe, Janet[McCabe.Janet@epa.gov]  
**From:** Beauvais, Joel  
**Sent:** Wed 9/30/2015 11:59:48 PM  
**Subject:** Re: Ozone implementation memo

Thx Janet and congrats on the rule!

> On Sep 30, 2015, at 7:26 PM, McCabe, Janet <McCabe.Janet@epa.gov> wrote:

>

> We have made the changes they suggested, which were helpful. We plan to put the memo out to the RAs for dissemination concurrent with posting the other materials--so that would be right around 2 PM. I'm including folks on cc in case I've got anything wrong....

>

> -----Original Message-----

> From: Beauvais, Joel

> Sent: Wednesday, September 30, 2015 4:19 PM

> To: McCabe, Janet

> Subject: Ozone implementation memo

>

> Hi - OMB is asking about specific timing on release of the memo and confirmation that requested changes have been made (?). Can you give me a read so I can get back to them? Thx.

>

> Joel

**To:** McCabe, Janet[McCabe.Janet@epa.gov]  
**From:** Davis, Alison  
**Sent:** Wed 9/30/2015 11:45:29 PM  
**Subject:** RE: Draft Hill Presentation

Thank you!

**From:** McCabe, Janet  
**Sent:** Wednesday, September 30, 2015 7:20 PM  
**To:** Davis, Alison <Davis.Alison@epa.gov>  
**Subject:** RE: Draft Hill Presentation

I noticed that stay “proposal”! I’m going to blast through some accumulated email in the next 30 minutes or so and then settle down to read the materials through.

**From:** Davis, Alison  
**Sent:** Wednesday, September 30, 2015 7:19 PM  
**To:** McCabe, Janet  
**Subject:** RE: Draft Hill Presentation

We’re doing OK – proofreading to remove things like “proposal” from headlines ☺ Will look for your comments in the a.m.?

**From:** McCabe, Janet  
**Sent:** Wednesday, September 30, 2015 7:18 PM  
**To:** Davis, Alison <Davis.Alison@epa.gov>  
**Subject:** RE: Draft Hill Presentation

Thanks! You hanging in there?

**From:** Davis, Alison  
**Sent:** Wednesday, September 30, 2015 7:10 PM

**To:** McCabe, Janet  
**Subject:** Draft Hill Presentation

Hi Janet,

Here is the latest draft of the Hill presentation for tomorrow.

- Alison

**From:** Mills, Kathy  
**Sent:** Wednesday, September 30, 2015 6:55 PM  
**To:** Davis, Alison <[Davis.Alison@epa.gov](mailto:Davis.Alison@epa.gov)>; Noonan, Jenny <[Noonan.Jenny@epa.gov](mailto:Noonan.Jenny@epa.gov)>;  
Ashley, Jackie <[Ashley.Jackie@epa.gov](mailto:Ashley.Jackie@epa.gov)>  
**Subject:** ozone PPT

Kathy "KB" Mills

Policy Analysis & Communications

U.S. EPA, Office of Air Quality Planning & Standards

919-541-1599

**To:** McCabe, Janet[McCabe.Janet@epa.gov]  
**From:** Davis, Alison  
**Sent:** Wed 9/30/2015 11:18:54 PM  
**Subject:** RE: Draft Hill Presentation

We're doing OK – proofreading to remove things like “proposal” from headlines ☺ Will look for your comments in the a.m.?

**From:** McCabe, Janet  
**Sent:** Wednesday, September 30, 2015 7:18 PM  
**To:** Davis, Alison <Davis.Alison@epa.gov>  
**Subject:** RE: Draft Hill Presentation

Thanks! You hanging in there?

**From:** Davis, Alison  
**Sent:** Wednesday, September 30, 2015 7:10 PM  
**To:** McCabe, Janet  
**Subject:** Draft Hill Presentation

Hi Janet,

Here is the latest draft of the Hill presentation for tomorrow.

- Alison

**From:** Mills, Kathy  
**Sent:** Wednesday, September 30, 2015 6:55 PM  
**To:** Davis, Alison <Davis.Alison@epa.gov>; Noonan, Jenny <Noonan.Jenny@epa.gov>; Ashley, Jackie <Ashley.Jackie@epa.gov>  
**Subject:** ozone PPT



Kathy "KB" Mills

Policy Analysis & Communications

U.S. EPA, Office of Air Quality Planning & Standards

919-541-1599

**To:** McCabe, Janet[McCabe.Janet@epa.gov]  
**From:** Davis, Alison  
**Sent:** Wed 9/30/2015 11:09:53 PM  
**Subject:** Draft Hill Presentation  
Ozone NAAQS final v7.pptx

Hi Janet,

Here is the latest draft of the Hill presentation for tomorrow.

- Alison

**From:** Mills, Kathy  
**Sent:** Wednesday, September 30, 2015 6:55 PM  
**To:** Davis, Alison <Davis.Alison@epa.gov>; Noonan, Jenny <Noonan.Jenny@epa.gov>;  
Ashley, Jackie <Ashley.Jackie@epa.gov>  
**Subject:** ozone PPT

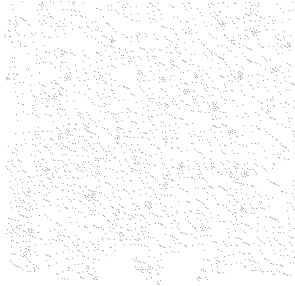
Kathy "KB" Mills

Policy Analysis & Communications

U.S. EPA, Office of Air Quality Planning & Standards

919-541-1599

**To:** McCabe, Janet[McCabe.Janet@epa.gov]; Reynolds, Thomas[Reynolds.Thomas@epa.gov];  
Vaught, Laura[Vaught.Laura@epa.gov]  
**From:** Beauvais, Joel  
**Sent:** Wed 9/30/2015 9:28:25 PM  
**Subject:** FW: Uploaded to ROCIS - Ozone NAAQS NFR Files - SAN 5306



This should be cleared this evening and should show up in the RegInfo website between 6 and 8 tomorrow am.

Joel

**From:** Jutras, Nathaniel  
**Sent:** Wednesday, September 30, 2015 5:23 PM  
**To:** Rush, Alan; Curry, Bridgid; Adams, Darryl; Henigin, Mary; Iglesias, Amber; Corrales, Mark; Beauvais, Joel; Owens, Nicole; Pritchard, Eileen; Rennert, Kevin; Balserak, Paul; Nickerson, William  
**Subject:** Uploaded to ROCIS - Ozone NAAQS NFR Files - SAN 5306

Good Afternoon, The revised Ozone NAAQS files have been uploaded and submitted to ROCIS.



RIN: 2060-AP38 (201510)  
Stage of Rulemaking: Final Rule Stage  
Title: Review of the National Ambient Air Quality Standards for Ozone

Agency/Sub Agency  
Submitted By:

## EO Review Package 2060-AP



EO Review Package was successfully submitted amendment at 09/30/2015 17:19:33 PM

### Unfunded Mandates

No

### Major

Yes

### Priority

Economically Significant

### Legal Authority

42 U.S.C. 7401 et seq. Clean Air Act

### CFR Citation

40 CFR 50

### Legal Deadline

| Action | Source   | Date       |
|--------|----------|------------|
| NPRM   | Judicial | 12/01/2014 |

### Overall Description of Deadline

**From:** Rush, Alan  
**Sent:** Wednesday, September 30, 2015 4:51 PM  
**To:** Curry, Bridgid; Adams, Darryl  
**Cc:** Jutras, Nathaniel; Henigin, Mary; Iglesias, Amber; Corrales, Mark  
**Subject:** Ozone NAAQS NFR Files - SAN 5306

Bridgid,

Here are the two Ozone NAAQS files – SAN 5306 – the RIA and the preamble and rule. These are the final OMB files for ROCIS.

Alan

**To:** DAA[DAA@epa.gov]; DRA[DRA@epa.gov]  
**Cc:** Burke, Thomas[Burke.Thomas@epa.gov]; Kadeli, Lek[Kadeli.Lek@epa.gov]; Robbins, Chris[Robbins.Chris@epa.gov]; ORD-NPD-Support[ORDNPDSupport@epa.gov]; Katz, Stacey[Katz.Stacey@epa.gov]; Robarge, Gail[Robarge.Gail@epa.gov]; Corona, Elizabeth[Corona.Elizabeth@epa.gov]; Gwinn, Maureen[gwinn.maureen@epa.gov]; Smith, Kelley[Smith.Kelley@epa.gov]; Deener, Kathleen[Deener.Kathleen@epa.gov]; Plotkin, Viktoriya[Plotkin.Viktoriya@epa.gov]  
**From:** Plotkin, Viktoriya  
**Sent:** Wed 9/30/2015 8:00:51 PM  
**Subject:** ORD's Draft Roadmaps for Partner Review  
[Environmental Justice Research Roadmap Partner Review Draft 09-30-15.docx](#)  
[Climate Change Research Roadmap Partner Review Draft 09-23-15v2.docx](#)

Dear EPA Colleagues,

ORD has been actively developing research roadmaps to focus on integrating efforts across the six national research programs in key topic areas. ORD has put special emphasis on ensuring that research in these cross-cutting issues is coordinated and collaborative. Embracing such integration ensures that the work is designed to tackle the increasingly complex nature of environmental challenges and threats.

Earlier this year we provided final drafts for comment on two of our cross-cutting roadmaps: Children's Environmental Health and Nitrogen and Co-pollutants. We are proud to let you know that these first two roadmaps are being finalized, and will be available on the ORD website in early October.

We are now completing the latest drafts of our two remaining roadmaps: Climate Change and Environmental Justice. In June 2014, we shared preliminary drafts of these cross-cutting roadmaps with you, and since that time have been working with your staff to get valuable input and advice. In July 2014, we took those early versions of the roadmaps to our Science Advisory Board and our Board of Scientific Counselors and received a set of recommendations that have also been very helpful in producing the final drafts. If you are interested in seeing the final report from the Science Advisory Board and the Board of Scientific Counselors as well as our response to the report, they can be found on the SAB website (links below).

We very much appreciate the perspective of all who actively participated in the development of these roadmaps and believe they accurately represent your programmatic priorities. However, if upon reading these roadmaps you have any major concerns, please do not hesitate to contact Maureen Gwinn ([gwinn.maureen@epa.gov](mailto:gwinn.maureen@epa.gov)). **We would appreciate any feedback by October**

**16.** These two roadmaps will be sent to our Board of Scientific Counselors by late October for their review prior to their face-to-face meeting in early December.

I look forward to talking to each of you over the next several months to discuss how we are working together to ensure our science and research activities are well-aligned to the Administrator's priorities and the Environmental Protection Agency's Strategic Plan.

Sincerely,

Robert Kavlock

Full reports from the SAB review and response can be found at the SAB website:

[http://yosemite.epa.gov/sab/sabproduct.nsf/0/98BF8161501B5A3C85257DDA005EB913/\\$File/EPA-SAB-15-004+BOSC+report-1+26+15-final+unsigned.pdf](http://yosemite.epa.gov/sab/sabproduct.nsf/0/98BF8161501B5A3C85257DDA005EB913/$File/EPA-SAB-15-004+BOSC+report-1+26+15-final+unsigned.pdf).

The detailed response to this review can be found on the website at:

[http://yosemite.epa.gov/sab/sabproduct.nsf/02ad90b136fc21ef85256eba00436459/98BF8161501B5A3C85257DDA005EB913/\\$File/SAB-15-004\\_Response\\_08-04-2015.pdf](http://yosemite.epa.gov/sab/sabproduct.nsf/02ad90b136fc21ef85256eba00436459/98BF8161501B5A3C85257DDA005EB913/$File/SAB-15-004_Response_08-04-2015.pdf)

**To:** Friedman, Kristina[Friedman.Kristina@epa.gov]; Walker, Jean[Walker.Jean@epa.gov]; Painter, Michele[Painter.Michele@epa.gov]; Meekins, Tanya[Meekins.Tanya@epa.gov]  
**Cc:** McCabe, Janet[McCabe.Janet@epa.gov]; Stewart, Lori[Stewart.Lori@epa.gov]; Shaw, Betsy[Shaw.Betsy@epa.gov]; Niebling, William[Niebling.William@epa.gov]; Cyran, Carissa[Cyran.Carissa@epa.gov]; Lubetsky, Jonathan[Lubetsky.Jonathan@epa.gov]; Terry, Sara[Terry.Sara@epa.gov]; Noonan, Jenny[Noonan.Jenny@epa.gov]; Mills, Kathy[Mills.Kathy@epa.gov]; DeMocker, Jim[DeMocker.Jim@epa.gov]; Krieger, Jackie[Krieger.Jackie@epa.gov]; Lemon, Mollie[Lemon.Mollie@epa.gov]; Hengst, Benjamin[Hengst.Benjamin@epa.gov]; Sutton, Tia[sutton.tia@epa.gov]; Faulkner, Martha[Faulkner.Martha@epa.gov]; Matthews, Barbara[Matthews.Barbara@epa.gov]  
**From:** Hamilton, Sabrina  
**Sent:** Wed 9/30/2015 7:11:20 PM  
**Subject:** OAR Preview Overdue Report for Week Ending October 03, 2015  
[OAR Preview Overdue Report for Week Ending October 03, 2015.pdf](#)

OAR Correspondence Coordinators:

Please review the attached report for correspondence due from your program office and try to complete the assignments by the due date indicated. If you have any questions or need assistance, please contact me. Thanks

Sabrina

Sabrina Hamilton  
Air and Radiation Liaison Specialist

and FOIA Coordinator  
Office of Air and Radiation - Correspondence Unit  
U.S. Environmental Protection Agency (EPA)  
1200 Pennsylvania Avenue, N.W. (6101-A)  
Washington, D.C. 20460  
Tel: (202) 564-1083  
Fax: (202) 501-0600



**To:** McCabe, Janet[McCabe.Janet@epa.gov]; Koerber, Mike[Koerber.Mike@epa.gov]; Millett, John[Millett.John@epa.gov]; Jordan, Deborah[Jordan.Deborah@epa.gov]  
**From:** Davis, Alison  
**Sent:** Tue 9/29/2015 7:21:57 PM  
**Subject:** RE: Ozone fact sheets

Thanks Janet. It's not supposed to be in the middle - something must have gone wrong.

-----Original Message-----

From: McCabe, Janet  
Sent: Tuesday, September 29, 2015 3:20 PM  
To: Koerber, Mike <Koerber.Mike@epa.gov>; Millett, John <Millett.John@epa.gov>; Davis, Alison <Davis.Alison@epa.gov>; Jordan, Deborah <Jordan.Deborah@epa.gov>  
Subject: RE: Ozone fact sheets

This is great...a Fact Sheet could add some of the CA specific numbers on health benefits as well.

Not to be picky, but if the map could be moved to one margin or the other instead of in the middle, I think the text would be easier to read.

-----Original Message-----

From: Koerber, Mike  
Sent: Tuesday, September 29, 2015 7:20 AM  
To: McCabe, Janet; Millett, John; Davis, Alison; Jordan, Deborah  
Subject: RE: Ozone fact sheets

We don't have a CA fact sheet, but we did draft the attached paper to include with the maps (i.e., this paper would pop up when one clicks on the greyed-out CA portion of the map).

-----Original Message-----

From: McCabe, Janet  
Sent: Tuesday, September 29, 2015 7:11 AM  
To: Millett, John; Davis, Alison; Jordan, Deborah; Koerber, Mike  
Subject: Ozone fact sheets

I've been looking through the ozone outreach materials, and they look quite good.

Do we have a separate fact sheet for California? If not, I think it would be useful. We can use material already developed for other sheets, but it'd be good to have a specific fact sheet to point to.

Thanks!

Sent from my iPhone

**To:** McCabe, Janet[McCabe.Janet@epa.gov]; Millett, John[Millett.John@epa.gov]; Davis, Alison[Davis.Alison@epa.gov]; Jordan, Deborah[Jordan.Deborah@epa.gov]  
**From:** Koerber, Mike  
**Sent:** Tue 9/29/2015 11:20:07 AM  
**Subject:** RE: Ozone fact sheets  
California pager'.docx

We don't have a CA fact sheet, but we did draft the attached paper to include with the maps (i.e., this paper would pop up when one clicks on the greyed-out CA portion of the map).

-----Original Message-----

From: McCabe, Janet  
Sent: Tuesday, September 29, 2015 7:11 AM  
To: Millett, John; Davis, Alison; Jordan, Deborah; Koerber, Mike  
Subject: Ozone fact sheets

I've been looking through the ozone outreach materials, and they look quite good.

Do we have a separate fact sheet for California? If not, I think it would be useful. We can use material already developed for other sheets, but it'd be good to have a specific fact sheet to point to.

Thanks!

Sent from my iPhone

**To:** McCarthy, Gina[McCarthy.Gina@epa.gov]  
**Cc:** McCabe, Janet[McCabe.Janet@epa.gov]; A-AND-R-DOCKET[A-AND-R-DOCKET@epa.gov]  
**From:** Leslie Ritts  
**Sent:** Mon 9/28/2015 7:53:35 PM  
**Subject:** RESEND-Petition for Reconsideration and Recission of Ames, Iowa's Annual and Seasonal Ozone NOx Emissions Pursuant to the Supplemental Transport Rule  
PETITION FOR RECONSIDERATION AND RESCISSION OF TRANSPORT RULE REQUIREMENTS FOR OZONE ANNUAL AND SEASONAL NOx EMISSION BUDGETS FOR THE CITY OF AMES, IOWA.pdf

Dear Madam Administrator,

On behalf of the City of Ames, Iowa, I am submitting a Petition for Reconsideration and Recission of the City's Annual and Seasonal Ozone NOx Emissions Budgets that were established pursuant to the Supplemental Transport Rule. 76 Fed. Reg. 80,760 (Dec. 27, 2011). I have faxed a copy of the Petition to the Air Docket and the Administrator's Office will receive a paper copy by Priority Mail.

If you have questions or require further information, please do not hesitate to call me or email me.

Respectfully submitted,

Leslie Sue Ritts, for the City of Ames, Iowa

Leslie Sue Ritts

Ritts Law Group, PLLC

620 Fort Williams Parkway

Alexandria, VA 22304

(703) 823-2292 (office)

(571) 970-3721 (fax)

(703) 966-3862 (cell)

[lsritts@rittslawgroup.com](mailto:lsritts@rittslawgroup.com)



**BEFORE THE ADMINISTRATOR**  
**OF THE**  
**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
  
**PETITION FOR RECONSIDERATION AND RESCISSION OF TRANSPORT RULE**  
**REQUIREMENTS FOR OZONE ANNUAL AND SEASONAL NITROGEN OXIDE (NO<sub>x</sub>)**  
**EMISSION BUDGETS FOR THE CITY OF AMES, IOWA STEAM ELECTRIC PLANT**  
**PURSUANT TO *E.M.E. HOMER CITY L.L.P. v. EPA*, 795 F.3d 118 (D.C. Cir. 2015)**  
  
**EPA-HQ-OAR-2009-0491**

**Submitted by**

**Ames Municipal Electric System**

Don Kom, Director- Electric Services,  
Brian Trower, Assistant Director-  
Electric Services  
Ames Municipal Electric System  
502 Carroll Ave., PO Box 811  
Ames, IA 50010  
[www.CityofAmes.org](http://www.CityofAmes.org)

**Counsel for the City of Ames**

Leslie Sue Ritts,  
Ritts Law Group, PLLC  
620 Fort Williams Parkway  
The Carriage House  
Alexandria, VA 22304  
[LSRitts@rittslawgroup.com](mailto:LSRitts@rittslawgroup.com)

**Submitted September 28, 2015**

*Via Electronic Mail, Facsimile, and Priority Mail*  
**a-and-r-Docket@epa.gov - EPA-HQ-OAR-2009-0491**  
The Honorable Gina McCarthy, Administrator  
U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue, NW  
Washington, D.C. 20460

**RE: PETITION FOR RECONSIDERATION AND RESCISSION OF TRANSPORT  
RULE REQUIREMENTS FOR OZONE ANNUAL AND SEASONAL  
NITROGEN OXIDE (NO<sub>x</sub>) EMISSION BUDGETS FOR THE CITY OF AMES  
STEAM ELECTRIC PLANT PURSUANT TO *E.M.E. HOMER CITY L.L.P. v.*  
*EPA*, 795 F.3d 118 (D.C. Cir. 2015)**

**Dear Administrator McCarthy:**

**Introduction** - This Petition for Reconsideration is filed by the City of Ames, Iowa pursuant to Clean Air Act Section 307(d)(7)(B), 42 U.S.C. § 7507(d)(7)(B) and Section 705(b) of the Administrative Procedures Act, 5 U.S.C. § 705(b). The City of Ames, Iowa, petitions you to reconsider and rescind the requirement for Phase 1 and Phase 2 Annual and Seasonal Ozone NO<sub>x</sub> emission budgets for the City of Ames, Iowa, promulgated pursuant to the Supplemental Cross State Air Pollution Rule (“Transport Rule”). 76 Fed. Reg. 80,760 (Dec. 27, 2011). On July 28, 2015, the U.S. Appeals Court for the District of Columbia (“D.C. Circuit”) found that Federal Implementation Plan NO<sub>x</sub> emission budgets linked to downwind areas that attained the Ozone National Ambient Air Quality Standard (Ozone NAAQS”) were invalid. *E.M.E. Homer City Generation, L.P. v. EPA*, 795 F.3d 118, 130 (D.C. Cir. 2015), citing the Supreme Court’s decision in *EPA v. EME Homer City Generation, L.L.P.*, \_ U.S. \_ 134 S. Ct. 1584 (2014):

“The Supreme Court made crystal clear in *EME Homer* that over-attainment in downwind locations is impermissible when that excess attainment is ‘unnecessary’.” *Id.* at 1609, slip op. at 29-30. “If EPA requires an upwind State to reduce emissions by more than the amount necessary to achieve attainment in *every* downwind State to which it is linked, the Agency will have overstepped its authority.”

*Id.* at 130 (citation omitted).

The City of Ames is required by EPA's Ozone Annual and Seasonal Transport FIP to reduce NOx emissions by more than the amount necessary to achieve attainment in the only downwind monitoring site to which the City is linked. See 76 Fed. Reg. 80,760, 80,763 (Dec. 27, 2011). The downwind monitoring receptor linked to the City of Ames is in fact located in an air quality control region that is in attainment with the Ozone NAAQS. Hence EPA must rescind the Phase 1 and Phase 2 Ozone Annual and Seasonal NOx emission budgets and the related Ozone Transport Federal Implementation Plan (FIP) applicable to the City of Ames.

### **BACKGROUND FACTS**

**The City of Ames, Iowa (COA or Ames)** is a municipal corporation that owns and operates two power plants in Ames, Iowa: (1) a steam electric plant consisting of two electric generating units ("EGUs" or "boilers") at 200 East 5th Street, and (2) a peaking plant with two combustion turbines located at 2200 Pullman Street, Ames, Iowa. The power plants are operated as a not-for-profit enterprise for the benefit of the city's residents and other customers to provide reliable low-cost electricity. Ames is located in central Iowa with a population of approximately 60,000, and is the home of Iowa State University and the United States Department of Agriculture's National Animal Disease Center. (COA supplies electricity to both these facilities.)

**2015-2016 Conversion of the COA Steam Electric Plant to Natural Gas-** This Petition affects the NOx allocations for the Ames Steam Electric Plant, comprised of the two boilers providing steam individually to two turbine-generators. Coal has been burned at the Steam Electric Plant since the early 1900s, and the boilers historically have burned pulverized Powder River Basin (PRB) ultra-low sulfur coal as the primary fuel, and co-fire refuse-derived fuel

(RDF) and distillate fuel oil (for start-up ignition and flame stabilization).<sup>1</sup> Currently, the City of Ames is retrofitting the Steam Electric Plant to burn natural gas with a small amount of RDF in order to comply with the Mercury and Air Toxics Rule. 40 C.F.R. Part 63, Subpart UUUUU.<sup>2</sup> A final federal PSD permit was issued by Iowa Department of Natural Resources on July 28, 2015 for the natural gas retrofit project.

The City's decision to convert the steam plant to natural gas also will assist the City and the State of Iowa to comply with the Existing Source Performance Standards that you signed on August 3, 2015. After retrofits are completed, however, the natural gas-fired boilers will be subject to Ozone Seasonal and Annual NOx emission budgets that became effective on January 1, 2015 for Phase 1 allocations. See 79 Fed. Reg. 71,663 (Dec. 3, 2014). Phase 2 emission budgets become effective on January 1, 2017. *Id.*

**Annual and Seasonal Ozone NOx Budgets** – When the Transport Rule was finalized on July 6, 2011, it did not include Ozone Annual or Seasonal NOx budgets for Ames, Iowa. EPA stated:

“With respect to the 1997 ozone NAAQS, the analysis EPA conducted for the Transport Rule proposal did not identify Wisconsin, Iowa, and Missouri as states that significantly contribute to nonattainment and/or interfere with maintenance of the ozone NAAQS in another state. However, the analysis conducted for the final Transport Rule showed that emissions from these three states interfere with maintenance of the ozone NAAQS in another state. EPA is not issuing FIPs with respect to the 1997 ozone NAAQS or finalizing ozone season NOX budgets for these states in this rule.”

76 Fed. Reg. 48,208, 48,213 (Aug. 8, 2011); see also 76 Fed. Reg. at 87,061.

Nonetheless the Supplemental Transport rule confirms that the Supplemental Ozone Annual and Seasonal NOx emission budgets for Iowa in the rule were derived by

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<sup>1</sup> Utilizing RDF as a fuel is especially important because the City of Ames and Story County in which the City resides, have no municipal solid waste (MSW) landfill. RDF is limited under the PSD permit to less than 30% by weight.

<sup>2</sup> EPA Region 7 approved a one year MATS extension for the plant on Jan. 20, 2015.



applying the same methodology used by EPA in the August 8, 2011 Transport Rule.

See 76 Fed. Reg. at 80762 <sup>3</sup>

**The Transport Rule Methodology**– Clean Air Act Section 110(a)(2)(D) provides that Act prohibits upwind States from emitting “amounts” of pollution that “contribute significantly” to nonattainment in downwind States. , 42 U.S.C. § 7410(a)(2)(D). EPA utilized a Two-Step Methodology to determine which upwind states should be utilized in both Transport Rules. In Step One, when an upwind State was found to contribute 1% or more of the relevant pollution at a downwind receptor, that upwind State was deemed to have a “linkage” to that downwind location. *See* Transport Rule. See also 76 Fed. Reg. at 48,236. In Step 2 of EPA’s analysis, EPA calculated the pollution reductions necessary for those 27 upwind States to comply with their good neighbor obligations. *Id.* at 48,253. *See also E.M.E. Homer City Generation, L.P. v. E.P.A.*, 795 F.3d 118, 125 (D.C. Cir. 2015) (citing *EPA v. EME Homer*, 134 S. Ct. at 1596).

**Linkage of Iowa to Allegan County, Michigan** – Under Step 1, the City of Ames was linked to one newly identified downwind receptor for Ozone in Allegan County, Michigan in the Supplemental Transport Rule. See 76 Fed Reg. at 80763 (Dec.27, 2011). In Step 2, EPA calculated the amount of NOx reductions from Iowa that contributed to nonattainment and/or interference with maintenance of the Ozone NAAQS at the Allegan County, Michigan monitoring site. As a result, the Agency slashed the Ozone season allocation of NOx allowances for the City's two electric generating units (Units 7 & 8) to 270 tons NOx in Phase 1 and 264 tons in Phase 2.<sup>4</sup> (To put the Supplemental Transport Rule NOx emissions budgets in

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<sup>3</sup> “EPA is finalizing FIPs to address the interstate transport requirements of the relevant NAAQS using a program created in the Transport Rule that was finalized on July 6, 2011 (76 FR 48208, Aug. 8, 2011).”

<sup>4</sup><http://www.epa.gov/crossstaterule/pdfs/UnitLevelAlloc.pdf>

perspective for the City of Ames, the Ames Steam Electric Plant [Units 7 & 8] had a combined averaged of 462 tons of NOx annually during the 2006-2010 ozone seasons.)

The Supplemental Transport Ozone NAAQS budgets for Iowa and the City of Ames were not before the D.C. Circuit in *E.M.E. Homer City v. EPA*.

## ARGUMENT

**Summary of Argument** -EPA's Phase 1 and 2 Annual and Seasonal Ozone NOx budgets are invalid under the D.C. Circuit's July 28, 2015 decision in *E.M.E. Homer City v. EPA* because the City of Ames, Iowa [and indeed all of Iowa] is linked only to the Allegan County, Michigan site in the Supplemental Transport Rule and that air quality control region is designated by EPA as an attainment area. Moreover, EPA has approved a ten year maintenance plan for the area that assures that it will meet the 1997 Ozone NAAQS until 2021. Therefore EPA must rescind the Supplemental Transport Rule's Ozone Annual and Seasonal NOx emission budgets for the City of Ames Electric Plant.

### **1. A Petition for Reconsideration is the Appropriate Vehicle to Request Rescission of Ames's Seasonal Ozone Transport Phase 1 and 2 Ozone NOx Budgets.**

Seasonal Supplemental Ozone NOx transport budgets were published on December 27, 2011 rulemaking and were not under review in *E.M.E Homer City L.L.P. v. EPA*, in which the Appellate Court considered only the "as applied claims" to the August 8, 2011 Transport Rule remanded to it by the U.S. Supreme Court.<sup>5</sup> This final agency action is therefore properly subject to an Administrative Petition for Reconsideration before EPA in that the Court's decision constitutes "new information." See CAA Section 307(d)(7)(B). In its opinion upholding the "as applied claims" filed by Petitioner States, the Court held that it is appropriate for Administrative Petitions for Reconsideration to be brought before the Agency for other States and entities:

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<sup>5</sup> See also discussion at <http://www.epa.gov/airtransport/CSAPR/stateinfo.html#states>.

“If it was ‘impracticable to raise a particular objection’ or if ‘the grounds for the objection arose after that period,’ parties still must petition EPA for administrative reconsideration before raising the issue before this Court. *See Utility Air Regulatory Group v. EPA*, 744 F.3d 741, 746 (D.C.Cir.2014). This may sometimes seem a roundabout procedure, but that is what the statute requires and what we therefore must insist upon. If EPA fails to conduct a reconsideration hearing, the party may seek review of that decision in this Court. *See* 42 U.S.C. § 7607(d)(7)(B) (‘If the Administrator refuses to convene such a proceeding, such person may seek review of such refusal in the United States court of appeals for the appropriate circuit.’).”

*E.M.E. Homer City Generation* at 137 (D.C. Cir. 2015). Such is the case here.

**2. The Annual and Seasonal Ozone Transport Budgets for the City of Ames Steam Electric Plant are Invalid.**

The NOx Annual and Seasonal Ozone budgets applicable to Ames under the Supplemental Transport rule result in over-control to achieve the Ozone NAAQS in the only downwind location to which the City is associated in EPA’s modeling. According to the D.C. Circuit in *E.M.E. Homer City*, “If EPA requires an upwind State to reduce emissions by more than the amount necessary to achieve attainment in *every* downwind State to which it is linked, the Agency will have overstepped its authority.” *Id.* at 130 (citing 134 S. Ct. 1608, slip op. at 29.)

Not only did EPA redesignate Allegan County, Michigan in attainment for the Ozone NAAQS in September 2010, 75 Fed. Reg. 58312 (Sept. 24, 2010), but the Agency also approved the Allegan County, Michigan ozone maintenance plan as part of its attainment redesignation action. The maintenance plan includes emission inventories of NOx and VOC emissions for 2018 and 2021 that demonstrate continued overall reductions in NOx (and VOC) emissions from the 2008 attainment inventory year. 75 Fed. Reg. 58312 (Sept. 24, 2010). In addition, according to the maintenance plan that EPA approved, “continuing reductions in ozone precursor emissions will be realized from fleet turnover, Maximum Achievable Control Technology (MACT)

standards for hazardous air pollutants, and federal diesel emissions programs.” See Allegan County, Michigan Ozone Maintenance Plan, EPA-R05-OAR-2010-0477-0002, p. 5 (May 12, 2010).

EPA’s Annual and Seasonal Ozone transport budgets applicable to the City of Ames were improper. In *E.M.E. Homer City*, the D.C. Circuit Court examined 10 nearly-identical factual circumstances where a State was determined in the Transport Rule to interfere with a downwind receptor in an air quality control region that had already attained the Ozone NAAQS. The Court ruled that requiring any transport rule emission reduction budgets for a downwind area already in attainment of the 1997 8-hour Ozone NAAQS were invalid:

“For ozone-season NOx, the only record data showed that the downwind locations to which 10 of those 11 upwind States (all but Texas) were linked would comply with their NAAQS in 2014 even with no good neighbor obligation on the upwind States. *See* Transport Rule, 76 Fed.Reg. at 48,246 (linkages); J.A. 2550–76 (2014 Base Case Maximum Values). The conclusion is therefore simple. The 2014 ozone-season NOx emissions budgets for those upwind States are invalid.”<sup>6</sup>

The Annual and Seasonal Ozone NOx emission budgets in Iowa and for the City of Ames Steam Electric Plant are invalid because they are not needed to attain and/or maintain the 1997 Ozone NAAQS in the Allegan County, Michigan air quality control region. “The Supreme Court made crystal clear in *EME Homer City* that over-attainment in downwind locations is impermissible when that excess attainment is ‘unnecessary’.” *EPA v. E.M.E. Homer City*, 134 S.Ct. at 1609. EPA clearly required Iowa sources like the City’s Steam Electric Plant to reduce emissions by more than the amount necessary to achieve attainment in *every* downwind State to

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<sup>6</sup>For Texas, petitioners acknowledge that some good neighbor obligation for ozone-season NOx may be appropriate, but they say that it must be far lower than \$500/ton. The record supports their argument. The evidence indicates that the two downwind locations to which Texas is linked for ozone—East Baton Rouge, Louisiana and Allegan County, Michigan—could comply with their NAAQS even if the upwind States to which those two locations were linked were subject to cost thresholds far lower than \$500/ton. The 2014 ozone-season NOx emissions budget for Texas is therefore invalid. *E.M.E. Homer City Generation, L.P. v. E.P.A.*, 795 F.3d 118, 130 (D.C. Cir. 2015).

which it is linked, and therefore EPA “overstepped its authority.” See *EPA v. EME Homer City Generation, L.L.P.*, \_ U.S.\_, 134 S. Ct. at 1607 (“EPA may “require the elimination of only those ‘amounts’ of pollutants that contribute to the nonattainment of NAAQS in downwind States.”); *Id.* at 1603–04 (“EPA’s task is to reduce upwind pollution, but only in “amounts” that push a downwind State’s pollution concentrations above the relevant NAAQS.”)

### **CONCLUSION AND REQUIRED REMEDY**

“If EPA requires an upwind State to reduce emissions by more than the amount necessary to achieve attainment in *every* downwind State to which it is linked, the Agency will have overstepped its authority.” *E.M.E. Homer City Generation, L.L.P. v. E.P.A.*, 795 F.3d 118, 130 (D.C. Cir. 2015) (citing the 134 S. Ct. at 1608). Further NOx reductions from the City’s Steam Electric Plant are not necessary for Allegan County, Michigan to achieve or maintain the Ozone NAAQS. Therefore, EPA must rescind the Ozone Annual and Seasonal NOx budgets for Iowa as they apply to Ames.

Cc: Janet McCabe, Acting Assistant Administrator  
U.S. EPA Office of Air and Radiation

**To:** McCabe, Janet[McCabe.Janet@epa.gov]  
**From:** Janet McCabe  
**Sent:** Mon 9/28/2015 12:15:05 AM  
**Subject:** Senate EPW 2015 Draft Written edits jg jm dpc jm sunday night  
Senate EPW 2015 Draft Written edits jg jm dpc jm sunday night.docx

Josh, William, Joe---

Dan's edits seem fine to me. See my few additional notes.

I'm ok with this now....

Janet

**To:** McCabe, Janet[McCabe.Janet@epa.gov]  
**From:** Utech, Dan G.  
**Sent:** Sun 9/27/2015 7:44:03 PM  
**Subject:** FW: Additional paragraph for LRM [EHF-114-150] EPA Oversight Testimony on Clean Power Plan and Ozone #931988080#

Possible to have a quick call about this? Want to be sure I understand what it means.

-----Original Message-----

**From:** Fitter, E. Holly  
**Sent:** Sunday, September 27, 2015 11:56 AM Eastern Standard Time  
**To:** Utech, Dan G.; DL-CEQ-LRM; Bauserman, Trent; DL-WHO-WHGC-LRM; 'JUSTICE'; Heinzelman, Kate; McCombs, Claire; Szabo, Aaron  
**Cc:** 'Lewis, Josh'  
**Subject:** Additional paragraph for LRM [EHF-114-150] EPA Oversight Testimony on Clean Power Plan and Ozone #931988080#

EPA has advised that Janet McCabe, Joe Goffman, and EPA/OGC all want the following language added at the top of page five, following the para on the model rules.

Please let me know of any issues by 11:00 AM Monday. thanks

Additional text:

**Deliberative**

**To:** McCabe, Janet[McCabe.Janet@epa.gov]  
**Cc:** Jordan, Deborah[Jordan.Deborah@epa.gov]  
**From:** Koerber, Mike  
**Sent:** Sat 9/26/2015 2:09:40 PM  
**Subject:** Re: ozone implementation memo 9-26-15 jm

Got it. I'll touch base with Scott to see if there any loose ends and will get the revised version back to you.

Sent from my iPhone

On Sep 26, 2015, at 10:03 AM, McCabe, Janet <McCabe.Janet@epa.gov> wrote:

A few last, I hope, comments from me.

We really do need to get this to folks Monday. I can forward to dan Monday afternoon on my way back from WVa if someone can send me a revised version. It doesn't mean we still can't make edits this week.

Sent from my iPhone

Begin forwarded message:

**From:** "Janet McCabe" **Personal Privacy**  
**Date:** September 26, 2015 at 10:01:29 AM EDT  
**To:** "McCabe, Janet" <McCabe.Janet@epa.gov>  
**Subject:** ozone implementation memo 9-26-15 jm

<ozone implementation memo 9-26-15 jm.docx>



**To:** McCabe, Janet[McCabe.Janet@epa.gov]  
**From:** Janet McCabe  
**Sent:** Sat 9/26/2015 2:01:29 PM  
**Subject:** ozone implementation memo 9-26-15 jm  
[ozone implementation memo 9-26-15 jm.docx](#)

**To:** McCabe, Janet[McCabe.Janet@epa.gov]  
**From:** Niebling, William  
**Sent:** Fri 9/25/2015 8:53:26 PM  
**Subject:** FW: Science Committee Letter  
09.24.15 SST Letter to EPA Administrator McCarthy.pdf

fyi

**From:** Lewis, Josh  
**Sent:** Thursday, September 24, 2015 10:36 AM  
**To:** Niebling, William; Lubetsky, Jonathan; Terry, Sara; Ashley, Jackie  
**Subject:** Fwd: Science Committee Letter

Letter I mentioned earlier on the call

Begin forwarded message:

**From:** "Dickerson, Tom" <Dickerson.Tom@epa.gov>  
**To:** "Vaught, Laura" <Vaught.Laura@epa.gov>, "Distefano, Nichole" <DiStefano.Nichole@epa.gov>, "Asher, Jonathan" <Asher.Jonathan@epa.gov>, "Aarons, Kyle" <Aarons.Kyle@epa.gov>, "Mitchell, Stacey" <Mitchell.Stacey@epa.gov>, "Rackoff, Jonathan" <Rackoff.Jonathan@epa.gov>, "Sublett, Stacey" <Sublett.Stacey@epa.gov>, "Bailey, KevinJ" <Bailey.KevinJ@epa.gov>, "Haman, Patricia" <Haman.Patricia@epa.gov>, "Lewis, Josh" <Lewis.Josh@epa.gov>  
**Subject:** FW: Science Committee Letter

HSST oversight letter requesting:

(1) all documents and communications between or among EPA, Office of Management and Budget, and the Executive Office of the President referring or relating to the final ozone NAAQS rule. And,

(2) transcribed interviews for Janet McCabe and Joel Beauvais

Tom Dickerson

Office of Congressional Relations

U.S. Environmental Protection Agency

(202) 564-3638

**From:** Stoika, Michelle [<mailto:Michelle.Stoika@mail.house.gov>]

**Sent:** Thursday, September 24, 2015 9:43 AM

**To:** Dickerson, Tom

**Cc:** Marin, Mark; Brazauskas, Joseph; Yamada, Richard

**Subject:** Science Committee Letter

Good morning,

Please find attached a letter from the House Science Committee to Administrator McCarthy. Please confirm receipt and let me know if you have any questions!

All the best,

Michelle Stoika

*Policy Assistant | Science, Space, and Technology Committee*

*Subcommittee on Energy | Subcommittee on Environment*

*2319 Rayburn HOB | Washington, DC 20515*

*office: (202) 225-1674 | fax: (202) 226-0113*

# Congress of the United States

## House of Representatives

COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY

2321 RAYBURN HOUSE OFFICE BUILDING

WASHINGTON, DC 20515-6301

(202) 225-6371  
[www.science.house.gov](http://www.science.house.gov)

September 24, 2015

The Honorable Gina McCarthy  
Administrator  
U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue, NW  
Washington, D.C. 20460

Dear Administrator McCarthy:

On December 17, 2014, the U.S. Environmental Protection Agency (EPA) issued its proposed rule for ozone National Ambient Air Quality Standards (NAAQS). The proposed rule would set more stringent standards, lowering the primary standard from the current 75 parts per billion (ppb) to a range of 65 to 70 ppb. If enacted, this rule is likely to be the costliest rule EPA has ever issued.<sup>1</sup>

The Committee is concerned with recent news reports related to EPA's proposed final standard, which was submitted to OMB on August 28, 2015, for final review before publication by October 1, 2015. These reports suggest that officials within various White House offices are urging the President to disregard EPA's suggested final standard in favor of a stricter limit preferred by environmental lobbying organizations. For example, one report states that "EPA appears intent on finalizing a 'primary' health-based NAAQS of 70 ppb, but faces calls from the White House Council on Environmental Quality (CEQ) to choose a stricter 68 ppb limit," and that outside groups are meeting with the Administration "to argue for their preferred level for the air standard."<sup>2</sup> Other news reports relay a similar narrative.<sup>3</sup>

Any new lower ozone standard is unnecessary at this time and could cause devastating harm to the economy. However, it is even more troubling that whatever scientific analyses used

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<sup>1</sup> Press Release, Nat'l Assoc. of Manufacturers, *NAM: Proposed Ozone Rule Still Most Costly in U.S. History*, Feb. 26, 2015, available at <http://www.nam.org/Newsroom/Press-Releases/2015/02/NAM--Proposed-Ozone-Rule-Still-The-Most-Costly/>.

<sup>2</sup> Stuart Parker *EPA Said To Support 70 ppb Standard In Final Ozone NAAQS Rulemaking*, Inside EPA, Sept. 3, 2015 available at <http://insideepa.com/daily-news/epa-said-support-70-ppb-standard-final-ozone-naaqs-rulemaking>

<sup>3</sup> Amanda Reilly, *White House sets stakeholder meetings on EPA ozone plan*, Greenwire, Sept. 4, 2015, available at <http://www.eenews.net/greenwire/2015/09/04/stories/1060024285>.

by EPA to determine its final recommended limit are being disregarded by White House officials for purely political reasons. The American people deserve a thorough, science-based analysis of the proposed ozone rule, not one based on partisan political considerations.

To assist the Committee's efforts to ensure adherence to sound science and objective analysis in agency rulemaking, please produce the following documents in electronic format:

1. All documents and communications between or among EPA, Office of Management and Budget, and the Executive Office of the President referring or relating to the final ozone NAAQS rule.

Additionally, I request that the following individuals be made available for transcribed interviews:

1. Janet McCabe, Acting Assistant Administrator, Office of Air and Radiation
2. Joel Beauvais, Associate Administrator, Office of Policy

The Committee on Science, Space, and Technology has jurisdiction over environmental and scientific programs and "shall review and study on a continuing basis laws, programs, and Government activities" as set forth in House Rule X.

Please provide the requested documents and information, as soon as possible, but no later than noon on October 8, 2015. When producing documents to the Committee, please deliver production sets to the Majority Staff in Room 2321 of the Rayburn House Office Building and the Minority Staff in Room 394 of the Ford House Office Building. The Committee prefers, if possible, to receive all documents in electronic format.

If you have any questions about this request, please contact Richard Yamada or Joe Brazauskas of the Science, Space, and Technology Committee staff at 202-225-6371. Thank you for your attention to this matter.

Sincerely,



Rep. Lamar Smith  
Chairman  
Committee on Science, Space,  
and Technology

cc: The Honorable Eddie Bernice Johnson, Ranking Minority Member, House Committee on Science, Space and Technology

**To:** McCabe, Janet[McCabe.Janet@epa.gov]  
**From:** Michael Bradley  
**Sent:** Mon 9/21/2015 9:03:37 PM  
**Subject:** CEG Meeting November 14th - DC

Janet,

I would like to invite you to participate at the November 14<sup>th</sup> Clean Energy Group meeting in Washington, DC. The group of 16 electric companies would benefit from hearing an update on the Clean Power Plan implementation process as well as on the revision to the ozone NAAQS.

You've attended these meetings in the past and know that the format is informal with time to engage in discussions.

Thanks for your consideration,

Michael

**To:** McCabe, Janet[McCabe.Janet@epa.gov]; Giles-AA, Cynthia[Giles-AA.Cynthia@epa.gov]  
**Cc:** Reynolds, Thomas[Reynolds.Thomas@epa.gov]; Bunker, Byron[bunker.byron@epa.gov]; Brooks, Phillip[Brooks.Phillip@epa.gov]; Millett, John[Millett.John@epa.gov]; Grundler, Christopher[grundler.christopher@epa.gov]; Conger, Nick[Conger.Nick@epa.gov]; Senn, John[Senn.John@epa.gov]; Birgfeld, Erin[Birgfeld.Erin@epa.gov]  
**From:** Hengst, Benjamin  
**Sent:** Fri 9/18/2015 1:22:57 AM  
**Subject:** VW Press release, internal Q&A and consumer web site language  
[DRAFT Internal QA doc VW Defeat Device 9.17.15 830pm.docx](#)  
[DRAFT consumer facing page VW defeat device 9.17.15 830pm.docx](#)  
[DRAFT VW Defeat Device PR 9-17-15 9pm for CARB.docx](#)

Hi Janet, Cynthia:

Attached are current versions of the internal Q&A, the consumer-facing website, and the PR. (Apologies if you already received these). These reflect edits that have come in since our 4pm meeting earlier today. These have been shared with California and we will make updates as edits come in.

Thanks,

Ben

**To:** McCabe, Janet[McCabe.Janet@epa.gov]  
**From:** Beauvais, Joel  
**Sent:** Thur 9/17/2015 10:55:11 PM  
**Subject:** Re: ozone implementation memo

Yep ok

On Sep 17, 2015, at 6:51 PM, McCabe, Janet <[McCabe.Janet@epa.gov](mailto:McCabe.Janet@epa.gov)> wrote:

Yes and yes. We're doing some quick editing on the transport section per today's conversation, but we'll get you a copy.

I figured the WH would ask to see it, so I'd be well to be proactive on that.

Sent from my iPhone

On Sep 17, 2015, at 5:05 PM, Beauvais, Joel <[Beauvais.Joel@epa.gov](mailto:Beauvais.Joel@epa.gov)> wrote:

Hi, Janet – Can I have a look at the draft memo? Did I hear you correctly that you are planning to share with OMB?

Joel



**To:** McCabe, Janet[McCabe.Janet@epa.gov]  
**Cc:** South, Peter[South.Peter@epa.gov]; Stewart, Lori[Stewart.Lori@epa.gov]  
**From:** Cyran, Carissa  
**Sent:** Thur 9/17/2015 9:05:50 PM  
**Subject:** E-folder for Friday, September 18, 2015  
[JM ACEEE Draft 9 16 15.pptx](#)  
[McCabe TPs ACEEE OAP v1.docx](#)  
[Remaining FRAP Commitments \(2\).docx](#)  
[Federal Radon Action Plan.pdf](#)  
[NRAP Guide Draft Template 7v3.pdf](#)  
[Radon Update for Janet for Mikes review 9-17-15 rev.docx](#)  
[CAP Tool 09-15-15.xlsx](#)  
[ADP Report-OMB Review 9-15-15.docx](#)  
[OAR 2017 OMB Draft v12.pptx](#)  
[Addressing the SO2 Remand 9-17-15.pptx](#)

Hello, Janet,

Please find below your calendar for Friday, September 18<sup>th</sup> as well as several documents for your review for the ACEEE meeting on Monday. Let me know if you have any issues opening the attachments. Safe travels!

|                            |                                                                                          |
|----------------------------|------------------------------------------------------------------------------------------|
| <b>8:30 am - 9:00 am</b>   | <b>Management Roundtable - 5400</b>                                                      |
| <b>9:00 am - 9:45 am</b>   | <b>Interstate Transport Update - 5400</b>                                                |
| <b>9:45 am - 10:30 am</b>  | <b>OP/OAR Prebrief for the EPA/OMB Regulatory Discussion - 5400</b>                      |
| <b>10:30 am - 11:00 am</b> | <b>Transitioning from Federal Radon Action Plan to National Radon Action Plan - 5400</b> |
| <b>11:00 am - 11:45 am</b> | <b>Preparation for Budget Briefing to OMB - 5400</b>                                     |
| <b>11:45 am - 12:00 pm</b> | <b>Press Conference Prep - WJC-N OPA</b>                                                 |
| <b>12:00 pm - 12:45 pm</b> | <b>Press Conference - WJC-N OPA</b>                                                      |
| <b>1:00 pm - 1:30 pm</b>   | <b>Climate Action Plan - Administrator's Office</b>                                      |
| <b>1:30 pm - 2:00 pm</b>   | <b>CPP Speech Review - 5400</b>                                                          |
| <b>2:00 pm - 2:30 pm</b>   | <b>Scheduling Meeting - 5400</b>                                                         |
| <b>2:30 pm - 3:00 pm</b>   | <b>One on one with Sarah Dunham - 5400</b>                                               |
| <b>3:00 pm - 3:30 pm</b>   | <b>General Discussion - 5400</b>                                                         |
| <b>3:30 pm - 4:00 pm</b>   | <b>Motorpool from EPA Hot Dog Stand to National Airport</b>                              |

**4:55 pm - 6:35 pm      Southwest Flight #459 from DCA to Indianapolis**

**For Review**

**Monday, September 21: ACEEE talking points and powerpoint**

\*\* We will get her background materials for her ACEEE breakfast and Arkansas Lunch events tomorrow. Attached is a powerpoint and associated TPs for her 30 minute morning keynote. I will be in tomorrow to address any needed edits.

**To:** McCabe, Janet[McCabe.Janet@epa.gov]  
**From:** Beauvais, Joel  
**Sent:** Thur 9/17/2015 9:05:53 PM  
**Subject:** ozone implementation memo

Hi, Janet – Can I have a look at the draft memo? Did I hear you correctly that you are planning to share with OMB?

Joel

**To:** Koerber, Mike[Koerber.Mike@epa.gov]; McCabe, Janet[McCabe.Janet@epa.gov]  
**From:** Sasser, Erika  
**Sent:** Thur 9/17/2015 2:45:12 PM  
**Subject:** Ozone talking points  
ozone talking points summary of 70 v5.docx

We've added some points (at end) as requested. Sending in case you have time to review in transit—will leave a hard copy on Mike's chair. Thanks

**To:** McCabe, Janet[McCabe.Janet@epa.gov]  
**From:** Reynolds, Thomas  
**Sent:** Thur 9/17/2015 11:50:47 AM  
**Subject:** Re: Ozone meetings today

Thanks Janet. Will attend.

Sent from my iPhone

> On Sep 17, 2015, at 5:36 AM, McCabe, Janet <McCabe.Janet@epa.gov> wrote:

>

> I know you're super busy today, John and Tom, but if you or one of your folks wants to attend the 3 PM meeting with Gina on ozone implementation, you're welcome. We'll be talking about the implementation memo we plan to put out on Oct 1, but I wouldn't be surprised if the conversation slurped over to rollout and communications generally.

>

> Sent from my iPhone